THE CANADA YEAR BOOK 1929

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CANADA

DOMINION BUREAU OF STATISTICS

GENERAL STATISTICS BRANCH

THE CANADA YEAR BOOK 1929

THE OFFICIAL STATISTICAL ANNUAL OF THE RESOURCES, HISTORY, INSTITUTIONS AND SOCIAL AND ECONOMIC CONDITIONS OF THE DOMINION

Published by Authority of

The Honourable JAMES MALCOLM, M.P.,

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SPECIAL ARTICLES IN CANADA YEAR BOOK, 1913-1928.

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PREFACE.

The Canada Year Book had its origin in the first year of the Dominion, when the "Year Book and Almanac of British North America"—being (to quote its sub-title) "an Annual Register of political, vital and trade statistics, customs tariffs, excise and stamp duties, and all public events of interest in Upper and Lower Canada, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland, and West Indies"—was founded. Subsequently the title was altered to "The Year Book and Almanac of Canada,—an annual statistical abstract of the Dominion and a register of legislation and of public men in British North America". It was published annually from 1867 to 1879.

In 1886, after the passing of a general Statistics Act, the "Statistical Abstract and Record of Canada" was instituted as an official book of reference respecting the institutions, population, finance, trade and general conditions of the Dominion, "with comparative data for the United Kingdom, British Possessions and foreign countries". The work was prepared in the General Statistical Office of the Department of Agriculture, and was continued annually until 1904, under the direction of Dr. George Johnson, F. S. S. In 1905 the General Statistical Office was amalgamated with the Census Office (which was at the same time made a permanent organization), the Year Book being remodelled by Dr. Archibald Blue, Chief Officer, and continued under the title "The Canada Year Book, Second Series".

In the reorganization and centralization of statistics which followed the report of the Commission on Statistics of 1912, and the establishment of the Dominion Bureau of Statistics in 1918, the improvement of the Year Book, both in content and method of presentation, was made a primary object, and this improvement has been continued down to the present time.

Among the more important special features incorporated in the present edition are the following:—a study of the occupations of the people as shown by the Census of 1921 (p. 134); a survey of production in 1926 (p. 203); a thoroughly revised chapter on forestry (p. 285); new material on the administration of Dominion and provincial mineral lands and on mining legislation (p. 337); details of the census of manufactures for 1926 and summary figures for 1927; a study of Canada's balance of international payments (p. 599); a summary of the results of the first Canadian census of trading establishments (p. 629); the first statistics of the operation of the old age pensions system (p. 750); a general survey of Dominion and provincial labour legislation as in 1928 (p. 755); a list of the more important Canadian books published in 1928. The appendix contains preliminary figures on immigration and trade for the fiscal year ended Mar. 31, 1929.

Throughout the volume the latest available information is included in each section, tables generally including figures for the fiscal year 1927-28 and the letter-press supplying supplementary figures extending in some cases to the end of the calendar year 1928.

The present volume has been edited by Mr. S. A. Cudmore, B.A. (Tor.), M.A. (Oxon.), F.S.S., F. R. Econ. Soc., who has been assisted as in past years by Mr. Joseph Wilkins, while Messrs. R. F. Clarke and W. H. Lanceley have also co-operated in the work. Grateful acknowledgments are hereby tendered to the numerous officials of the Dominion and Provincial Governments who have assisted in the collection of information, especially to the Natural Resources Intelligence Service of the Department of the Interior for the maps included in the volume. While the greatest care has been taken in the preparation of the volume, there are doubtless imperfections, and with a view to the improvement of future editions, the Editor will be glad to hear of any errors which may have escaped his notice, and to receive any suggestions with regard to omissions or to method of treatment.

R. H. COATS,
Dominion Statistician.

Dominion Bureau of Statistics,
Ottawa, May 1, 1929.

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STATISTICAL SUMMARY OF THE PROGRESS OF CANADA.

Area of the Dominion of Canada in square miles—Land, 3,542,049; Water, 142,674; Total, 3,684,723.

	Items.		1871.	1881.	1891.	1901.	1906.
	Population[1]—						
1	Prince Edward Island	No.	94,021	108,891	109,078	103,259	98,222
2	Nova Scotia	"	387,800	440,572	450,396	459,574	476,119
3	New Brunswick	"	285,594	321,233	321,263	331,120	341,682
4	Quebec	"	1,191,516	1,359,027	1,488,535	1,648,898	1,822,992
5	Ontario	"	1,620,851	1,926,922	2,114,321	2,182,947	2,352,470
6	Manitoba	"	25,228	62,260	152,506	255,211	343,082
7	Saskatchewan	"	–	–	–	91,279	251,730
8	Alberta	"	–	–	–	73,022	182,813
9	British Columbia	"	36,247	49,459	98,173	178,657	268,276
10	Yukon Territory	"	–	–	–	27,219	14,899
11	Northwest Territories	"	48,000	56,446	98,967	20,129	18,364
	Canada	"	3,689,257	4,324,810	4,833,239	5,371,315	6,170,649
	Immigration—						
12	From United Kingdom	No.	–	–	11,383[2]	11,810	86,796
13	" United States	"	–	–	2,412[2]	17,987	57,796
14	" Other Countries	"	–	–	7,921[2]	19,352	44,472
	Total	"	27,773	47,991	21,716[2]	49,149	189,064
	Agriculture—						
15	Area of occupied farms	acre	36,046,401	45,538,141	58,997,995	63,422,338	–
16	Improved lands	"	17,335,818	21,899,181	27,729,852	30,166,033	–
	Field crops[3]—						
17	Wheat	acre	1,646,781	2,366,554	2,701,213	4,224,542	–
		bush.	16,723,873	32,350,269	42,223,372	55,572,368	–
		$	16,993,265	38,820,323	31,667,529	36,122,039	–
18	Oats	acre	–	–	3,961,356	5,367,655	–
		bush.	42,489,453	70,493,131	83,428,202	151,497,407	–
		$	15,966,310	23,967,655	31,702,717	51,509,118	–
19	Barley	acre	–	–	868,464	871,800	–
		bush.	11,496,038	16,844,868	17,222,795	22,224,366	–
		$	8,170,735	11,791,408	8,611,397	8,889,746	–
20	Corn	acre	–	–	195,101	360,758	–
		bush.	3,803,330	9,025,142	10,711,380	25,875,919	–
		$	2,883,145	5,415,085	5,034,348	11,902,923	–
21	Potatoes	acre	403,102	464,289	450,190	448,743	–
		bush.	47,330,187	55,268,227	53,490,857	55,362,635	–
		$	15,211,774	13,288,510	21,396,342	13,842,658	–
22	Hay and Clover	acre	3,650,419	4,458,349	5,931,548	6,543,423	–
		ton	3,818,641	5,055,810	7,693,733	7,852,731	–
		$	38,869,900	40,446,480	69,243,597	85,625,315	–
	Total Area Field Crops[6]	acre	–	–	15,662,811	19,763,740	–
	Total Value Field Crops[6]	$	111,116,606	155,277,427	194,766,934	237,682,285	–
	Live Stock—						
23	Horses	No.	836,743	1,059,358	1,470,572	1,577,493	–
		$	–	–	–	118,279,419	–
24	Milch Cows	No.	1,251,209	1,595,800	1,857,112	2,408,677	–
		$	–	–	–	69,237,970	–
25	Other Cattle	No.	1,373,081	1,919,189	2,263,474	3,167,174	–
		$	–	–	–	54,197,341	–
26	Sheep	No.	3,155,509	3,048,678	2,562,781	2,510,239	–
		$	–	–	–	10,490,594	–
27	Swine	No.	1,366,083	1,207,619	1,733,850	2,353,828	–
		$	–	–	–	16,445,702	–
	Total value	$	–	–	–	268,651,026	–
	Dairying[3]—						
28	Cheese, factory	lb.	155,524	54,574,856	97,418,855	220,833,269	204,788,583[8]
		$	17,585	5,130,036	9,644,467	22,221,430	23,597,639[8]
29	Butter, creamery	lb.	981,939	1,365,912	3,654,364	36,066,739	45,930,294[8]
		$	188,532	225,375	635,859	7,240,972	10,949,062[8]
30	Butter, home made	lb.	74,190,584	102,545,169	111,577,210	105,343,076	–
		$	14,244,592	16,919,952	19,414,435	21,384,644	–
31	Miscellaneous dairy products	$	–	–	–	15,623,907	–
	Total value of dairy products	$	15,023,966	22,743,939	30,315,214	66,470,953	–
32	**Forestry**—Exports of Wood, Wood Products and Paper	$	–	–	25,351,085	33,099,915	45,716,762
33	**Fisheries**	$	7,573,199	15,817,162	18,977,874	25,737,153	26,279,485
34	**Raw Furs**	$	–	987,555	768,983	899,645	–

[1] Estimated populations are given for inter-censal and post-censal years. [2] 1897. [3] The figures for 1871-1911 are for the preceding years. Export prices have been used in working out values of dairy products.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued.

Area of the Dominion of Canada in square miles:—Land, 3,542,049; Water, 142,674; Total, 3,684,723.

1911.	1916.	1921.	1924.	1925.	1926.	1927.	1928.[4]	
93,728	90,916	88,615	87,700	87,300	87,000	86,700	86,400	1
492,338	506,660	523,837	533,600	536,900	540,000	543,000	547,000	2
351,889	368,844	387,876	399,400	403,300	407,200	411,000	415,000	3
2,005,776	2,177,352	2,361,199	2,480,000	2,520,000	2,561,800	2,604,000	2,647,000	4
2,527,292	2,722,804	2,933,662	3,062,000	3,103,000	3,145,600	3,187,000	3,229,000	5
461,394	553,860	610,118	626,800	632,400	639,056	647,000	655,000	6
492,432	647,835	757,510	796,800	809,900	820,738	836,000	851,000	7
374,295	496,525	588,454	599,600	603,300	607,599	617,000	631,900	8
392,480	457,243	524,582	553,000	560,500	568,400	575,000	583,000	9
8,512	6,317	4,157	3,550	3,500	3,450	3,470	3,500	10
6,507	7,228	7,988	8,490	8,600	8,850	9,050	9,200	11
7,206,643	8,035,584	8,788,483[7]	9,150,940	9,268,700	9,389,693	9,519,220	9,658,000	
123,013	8,664	74,262	72,919	53,178	37,569	50,378	50,872	12
121,451	36,937	48,059	20,521	15,818	18,778	21,025	25,007	13
66,620	2,936	26,156	55,120	42,366	39,717	72,588	75,718	14
311,084	48,537	148,477	148,560	111,362	96,064	143,991	151,597	
108,968,715	–	140,887,903	–	–	–	–	–	15
48,733,823	–	70,769,548	–	–	–	–	–	16
8,864,154	15,369,709	23,261,224	22,055,710	20,789,790	22,895,649	22,460,154	24,119,140	17
132,077,547	262,781,000	300,858,100	262,097,000	395,474,700	407,136,000	479,665,000	533,571,700	
104,816,825	344,096,400	242,936,000	320,362,000	487,736,200	442,221,000	477,791,000	426,013,000	
8,656,179	10,996,487	16,949,029	14,491,289	12,555,675	12,741,340	13,239,963	13,136,516	18
245,393,425	410,211,000	426,232,900	405,976,000	402,296,000	383,416,000	439,712,700	452,153,000	
86,796,130	210,957,500	146,395,300	200,688,000	167,170,600	184,098,000	225,879,000	210,956,000	
1,283,094	1,802,996	2,795,665	3,407,441	3,523,953	3,642,462	3,505,713	4,880,740	19
28,848,310	42,770,000	59,709,100	88,807,000	87,118,300	99,987,100	96,938,000	136,391,400	
14,653,697	35,024,000	28,254,150	61,760,000	46,014,100	52,059,000	64,193,000	76,112,000	
293,951	173,000	296,866	295,015	238,767	209,725	131,626	139,192	20
14,417,599	6,282,000	14,904,000	11,998,000	10,564,300	7,813,000	4,262,000	5,241,000	
5,774,039	6,747,000	12,317,000	14,227,000	9,938,700	7,780,000	4,212,000	5,860,000	
464,504	472,992	701,912	561,628	522,361	523,112	572,373	599,063	21
55,461,478	63,297,000	64,407,600[5]	56,648,000[5]	40,216,900[5]	46,937,000[5]	46,458,000[5]	50,195,000[5]	
27,426,765	50,982,300	82,147,600	47,956,000	82,859,900	69,204,000	54,341,000	40,874,000	
8,289,407	7,821,257	10,614,951	9,874,907	9,562,974	9,516,125	10,226,895	10,320,863	22
10,406,367	14,527,000	11,266,100	14,960,300	14,962,200	14,058,000	17,370,000	16,515,000	
90,115,531	168,547,900	267,764,200	165,587,000	154,886,400	170,473,000	180,835,000	171,225,000	
30,556,168	38,930,333	59,635,346	57,852,550	53,108,145	56,097,836	56,172,310	59,351,811	
384,513,795	886,494,900	931,863,670	995,235,900	1,098,303,938	1,104,983,100	1,172,643,600	1,099,781,000	
2,598,958	3,246,430	3,813,921	3,588,788	3,554,041	3,398,114	3,421,857	3,376,394	23
381,915,505	418,686,000	314,764,000	229,421,000	245,764,000	245,119,000	260,476,000	255,469,000	
2,595,255	2,835,532	3,736,832	3,726,985	3,830,175	3,839,191	3,894,311	3,792,522	24
109,575,526	198,896,000	190,157,000	170,567,000	193,989,000	201,236,000	236,626,000	272,109,000	
3,930,828	3,763,155	6,469,373	5,733,851	5,477,123	4,731,688	5,277,927	5,000,750	25
86,278,490	204,477,000	183,649,000	154,524,000	168,037,000	148,742,000	204,917,000	231,700,000	
2,174,300	2,025,030	3,675,860	2,684,743	2,755,556	3,142,476	3,262,706	3,415,788	26
10,701,691	20,927,000	23,308,000	24,036,000	26,795,000	31,417,000	32,004,000	35,530,000	
3,634,778	3,484,982	3,904,895	5,069,181	4,426,148	4,359,582	4,694,789	4,497,367	27
26,986,621	60,700,000	54,842,000	62,596,000	69,702,000	69,958,000	65,116,000	66,595,000	
615,457,833	903,686,000	766,720,000	641,144,000	704,287,000	696,472,000	799,139,000	861,403,000	
199,904,205	192,968,597	162,117,494	149,707,530	177,139,113	171,731,631	138,056,908	–	28
21,587,124	35,512,622	28,710,030	24,201,923	36,571,556	28,807,841	25,522,148	–	
64,489,398	82,564,130	128,744,610	178,074,849	169,494,967	177,209,287	176,978,947	–	29
15,597,807	26,966,355	48,135,439	60,494,826	63,008,097	61,753,390	65,709,986	–	
137,110,200	–	100,000,000	100,000,000	100,000,000	100,000,000	95,000,000	–	30
30,269,497	–	29,840,000	29,347,000	32,128,795	28,252,777	30,435,121	–	
35,862,437	–	98,627,598	103,854,528	109,265,795	130,815,819	131,998,696	–	31
103,381,854	–	205,436,350	217,974,892	241,069,320	249,710,067	253,736,605	–	
56,334,695	83,116,282	284,561,478	273,354,778	253,610,024	278,674,960	284,120,267	284,543,396	32
34,667,872	35,860,708	34,931,935	44,534,235	47,942,131	56,360,633	49,497,038	54,971,319	33
1,927,550	–	10,151,594	15,643,817	15,441,564	15,072,244	18,864,126	–	34

[4] The figures for 1928 are subject to revision. [5] Cwt. [6] See Monthly Bulletin of Agricultural Statistics for May, 1921, for particulars of the values of field crops for the years, 1871, 1881, 1891 and 1901. [7] Includes Canadian Navy. [8] 1907.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued.

	Items.		1871.	1881.	1891.	1901.	1906.
	Minerals—						
1	Gold	oz.	105,187	63,524	45,018	1,167,216	556,415
		$	2,174,412	1,313,153	930,614	24,128,503	11,502,120
2	Silver	oz.	–	355,083[1]	414,523	5,539,192	8,473,379
		$	–	347,271[1]	409,549	3,265,354	5,659,455
3	Copper	lb.	–	3,260,424[1]	9,529,401	37,827,019	55,609,888
		$	–	366,798[1]	1,226,703	6,096,581	10,720,474
4	Lead	lb.	–	204,800[1]	88,665	51,900,958	54,608,217
		$	–	9,216[1]	3,857	2,249,387	3,089,187
5	Nickel	lb.	–	830,477[1]	4,035,347	9,189,047	21,490,955
		$	–	498,286[1]	2,421,208	4,594,523	8,948,834
6	Pig iron	ton	–	24,827[1]	23,891	274,376	598,411
		$	–	366,192[1]	368,901	3,512,923	7,955,136
7	Coal	ton	1,063,742[2]	1,537,106	3,577,749	6,486,325	9,762,601
		$	1,763,423[2]	2,688,621	7,019,425	12,699,243	19,732,019
8	Cement	brl.	–	69,843[1]	93,479	450,394	2,128,374
		$	–	81,909[1]	108,561	660,030	3,170,859
	Total value	$	–	10,221,255[3]	18,976,616	65,797,911	79,286,697
	Electric Statistics—						
9	Power Houses	No.	–	–	80	58	157
10	Capital invested	$	–	–	4,113,771	11,891,025	80,393,445
11	Kilowatt hours generated[4]	No.	–	–	–	–	–
12	Customers	No	–	–	–	–	–
	Water Power—						
13	Turbine H.P. installed	No.	–	–	71,219	235,946	606,316
	Manufactures[5]—						
14	Employees	No.	187,942	254,894	272,033	339,173	383,920
15	Capital	$	77,964,020	164,957,423	353,213,000	446,916,487	833,916,155
16	Salaries and wages	$	40,851,009	59,401,702	79,234,311	113,249,350	162,155,578
17	Products	$	221,617,773	309,731,867	368,696,723	481,053,375	706,446,578
	External Trade						
18	Exports[6]	$	57,630,024	83,944,701	88,671,738	177,431,386	235,483,956
19	Imports[7]	$	84,214,388	90,488,329	111,533,954	177,930,919	283,740,280
	Total	$	141,844,412	174,433,030	200,205,692	355,362,305	519,224,236
	Exports to and Imports from U.K. and U.S.—						
20	Exports to United Kingdom	$	21,733,556	42,637,219	43,243,784	92,857,525	127,456,465
21	Imports from United Kingdom	$	48,498,202	42,885,142	42,018,943	42,820,334	69,183,915
22	Exports to United States	$	29,164,358	34,038,431	37,743,430	67,983,673	83,546,306
23	Imports from United States	$	27,185,586	36,338,701	52,033,477	107,377,906	169,256,452
	Exports, Domestic, by chief items—						
24	Wheat	bush.	1,748,977	2,523,673	2,108,216	9,739,758	40,399,402
		$	1,981,917	2,593,820	1,583,084	6,871,939	33,658,391
25	Wheat flour	brl.	306,339	439,728	296,784	1,118,700	1,532,044
		$	1,609,849	2,173,108	1,388,578	4,015,226	6,179,825
26	Oats	bush.	542,386	2,926,532	260,560	8,155,063	2,700,303
		$	231,227	1,791,873	129,917	2,490,521	1,083,347
27	Hay	ton	23,487	168,381	65,083	252,977	206,714
		$	290,217	1,813,208	559,489	2,097,882	1,529,941
28	Bacon and hams, shoulders and sides	cwt.	103,444	103,547	75,541	1,055,495	1,029,079
		$	1,018,918	758,334	628,469	11,778,446	12,086,868
29	Butter	lb.	15,439,266	17,649,491	3,768,101	16,335,528	34,031,525
		$	3,065,234	3,573,034	602,175	3,295,663	7,075,539
30	Cheese	lb.	8,271,439	49,255,523	106,202,140	195,926,697	215,834,543
		$	1,109,906	5,510,443	9,508,800	20,696,951	24,433,169
31	Gold	$	163,037	767,318	554,126	24,445,156	12,991,916
32	Silver	oz.	–	–	–	4,022,019	7,261,527
		$	595,261	34,494	238,367	2,420,750	4,310,528
33	Copper[8]	lb.	6,246,000	39,604.000	10,994,498	26,345,776	44,282,348
		$	120,121	150,412	505,196	2,659,261	7,148,633
34	Nickel	lb.	–	–	5,352.043	9,537,558	23,959,841
		$	–	–	240,499	958,365	2,166,936
35	Coal	ton	318,287	420,055	833,684	1,888,538	1,820,511
		$	662,451	1,123,091	2,916,465	5,307,060	4,643,198
36	Asbestos	ton	–	–	7,022	26,715	57,075
		$	–	–	513,908	864,573	1,578,137
37	Wood pulp	cwt.	–	–	–	–	–
		$	–	–	280,619	1,937,207	3,478,150
38	Newsprint paper	cwt.	–	–	–	–	–
		$	–	–	–	–	–

[1] 1887. [2] 1874. [3] 1886. [4] 000's omitted. [5] The statistics of manufactures in 1871 and 1881 include works employing fewer than 5 hands, while those of 1891, 1901, 1911 and 1916 are for works with 5 hands and over, except in the case of butter and cheese factories, flour and grist mills, electric light plants, lumber, lath and shingle mills, lime kilns, brick and tile works and fish canneries. The figures are for

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued.

1911.	1916.	1921.	1924.	1925.	1926.	1927.	1928.[9]	
473,159	930,492	926,329	1,525,382	1,735,735	1,754,228	1,852,785	1,891,050	1
9,781,077	19,234,976	19,148,920	31,532,443	35,880,826	36,263,110	38,300,464	39,091,472	
32,559,044	25,459,741	13,543,198	19,736,323	20,228,988	22,371,924	22,736,698	21,922,795	2
17,355,272	16,717,121	8,485,355	13,180,113	13,971,150	13,894,531	12,816,677	12,753,806	
55,648,011	117,150,028	47,620,820	104,457,447	111,450,518	133,094,942	140,147,440	201,940,172	3
6,586,998	31,867,150	5,953,555	13,604,538	15,649,882	17,490,300	17,194,487	28,488,118	
23,784,969	41,497,615	66,679,592	175,485,499	253,590,578	283,801,265	311,423,161	334,830,237	4
827,717	3,532,692	3,828,742	14,221,345	23,127,460	19,240,661	16,477,139	15,474,003	
34,098,744	82,958,564	19,293,060	69,536,350	73,857,114	65,714,294	66,798,717	96,755,578	5
10,229,623	29,035,498	6,752,571	19,470,178	15,946,672	14,374,163	15,262,171	22,318,907	
917,535	1,169,257	665,676	664,215	639,257	820,426	794,860	1,112,039	6
12,307,125	16,750,898	15,511,828	13,255,193[10]	12,178,865[10]	16,011,173[10]	14,038,793[10]	20,593,716[10]	
11,323,388	14,483,395	15,057,495	13,638,197	13,134,968	16,478,131	17,426,861	17,554,293	7
26,467,646	38,817,481	72,451,656	53,593,988	49,261,951	59,875,094	61,867,463	62,681,136	
5,692,915	5,369,560	5,752,885	7,498,624	8,116,597	8,707,021	10,065,865	10,954,184	8
7,644,537	6,547,728	14,195,143	13,398,411	14,046,704	13,013,283	14,391,937	16,583,703	
103,220,994	177,201,534	171,923,342	209,583,406	226,583,333	240,437,123	247,356,695	273,446,864	
266	307	510	532	563	595	629	–	9
110,838,746	248,573,546	484,669,451	628,565,093	726,721,087	756,220,066	866,825,285	–	10
–	–	5,614,132	9,315,277	10,110,459	12,093,445	14,549,099	15,931,204	11
–	–	973,212	1,200,950	1,279,731	1,337,562	1,381,968	–	12
1,358,333	2,217,354	2,706,738	3,571,444	4,290,428	4,556,000	4,777,921	5,349,232	13
515,203	–	439,889	508,503	544,225	581,539	618,933	–	14
1,247,583,609	1,958,705,230	3,052,818,103	3,538,813,460	3,808,309,981	3,981,569,590	4,337,631,558	–	15
241,008,416	283,311,505	498,430,750	559,884,045	596,015,171	653,850,933	693,932,228	–	16
1,165,975,639	1,381,547,225	2,516,977,811	2,695,053,582	2,948,545,315	3,247,803,438	3,425,498,540	–	17
274,316,553	741,610,638	1,189,163,701	1,045,351,056	1,069,067,353	1,315,355,791	1,252,157,506	1,228,207,606	18
452,724,603	508,201,134	1,240,158,882	893,366,867	796,932,537	927,328,732	1,030,892,505	1,108,956,466	19
727,041,156	1,249,811,772	2,429,322,583	1,938,507,923	1,865,999,890	2,242,684,523	2,283,050,011	2,337,164,072	
132,156,924	451,852,399	312,844,871	360,057,782	395,843,433	508,237,560	446,872,851	410,691,392	20
109,934,753	77,404,361	213,973,562	153,586,690	151,083,946	163,731,210	163,939,065	185,895,857	21
104,115,823	201,106,488	542,322,967	430,707,544	417,417,144	474,987,367	466,422,789	478,003,646	22
275,824,265	370,880,549	856,176,820	601,256,447	509,780,009	608,618,542	687,022,521	719,436,237	23
45,802,115	157,745,469	129,215,157	256,870,237	191,764,537	249,679,470	248,497,482	266,902,189	24
45,521,134	172,896,445	310,952,138	267,758,559	251,665,844	364,364,388	353,094,940	352,117,150	
3,049,046	6,400,214	6,017,032	11,714,929	11,029,227	10,084,974	10,147,705	9,387,273	25
13,854,790	35,767,044	66,520,490	62,783,118	70,638,692	69,687,598	68,720,334	59,879,302	
5,431,662	26,816,322	14,321,048	23,348,698	32,775,761	43,058,283	15,438,329	7,158,723	26
2,144,846	14,637,849	14,152,033	11,146,408	16,044,436	24,237,693	8,598,755	4,275,353	
326,132	255,407	179,398	332,293	225,403	368,787	321,733	171,164	27
2,723,291	5,849,426	4,210,594	3,725,282	2,544,582	3,711,840	3,246,170	1,684,100	
598,745	1,536,517	982,338	996,245	1,208,721	1,253,760	787,447	568,447	28
8,526,332	27,090,113	31,492,407	18,113,755	22,392,223	28,590,301	19,117,097	11,940,909	
3,142,682	3,441,183	9,739,414	13,648,968	24,501,981	23,303,865	9,878,400	2,643,300	29
744,288	1,018,769	5,128,831	5,070,691	8,715,962	8,773,125	3,351,589	1,053,553	
181,895,724	168,961,583	133,620,340	116,777,000	126,963,200	148,333,500	136,665,400	105,212,600	30
20,739,507	26,690,500	37,146,722	23,426,282	24,112,475	33,718,587	24,956,179	21,100,625	
5,344,465	16,870,394	3,038,779	17,384,090	28,793,333	25,968,094	6,854,342	9,035,734	31
33,731,010	27,794,566	13,331,050	17,948,266	18,584,733	18,382,415	21,812,957	21,370,047	32
17,269,168	14,298,351	11,127,432	11,539,783	12,347,582	12,365,576	12,976,334	11,861,537	
55,005,342	111,046,300	36,167,900	44,965,200	53,374,000	61,090,600	66,860,700	74,945,500	33
5,575,033	14,670,073	4,336,972	4,754,413	5,847,848	7,037,206	7,835,143	7,083,725	
34,767,523	70,443,000	47,018,300	56,939,200	61,549,700	71,081,400	62,444,700	78,228,500	34
3,842,332	7,714,769	9,405,291	9,388,511	10,174,245	12,829,244	12,921,190	17,026,304	
2,315,171	1,971,124	2,277,202	1,217,835	719,502	753,842	1,264,901	884,097	35
6,014,095	6,032,765	16,501,478	7,842,259	4,388,766	4,083,712	7,112,763	4,653,816	
69,829	88,833	191,299	225,486	212,938	269,652	265,946	264,127	36
2,076,477	2,962,010	12,633,389	8,678,164	7,742,739	9,920,900	10,614,694	10,677,171	
6,588,655	8,144,019	14,363,006	17,306,981	16,405,213	19,812,381	18,959,351	17,886,405	37
5,715,532	10,376,548	71,552,037	46,173,796	41,565,241	49,909,870	49,887,739	47,261,235	
–	9,264,080	15,112,586	23,564,808	25,027,889	29,537,366	35,437,629	39,417,522	38
3,092,437	17,974,292	78,922,137	88,711,451	91,808,330	102,238,568	116,452,158	128,507,101	

the preceding years. From 1922 on statistics are exclusive of construction, hand trades, repair and custom work. Figures for 1925 to 1927 include non-ferrous metal smelting not included in earlier years. [6] Exports of domestic merchandise only. [7] Imports of merchandise for home consumption. [8] Copper, fine, contained in ore, matte, regulus, etc. [9] The figures for 1928 are subject to revision. [10] Estimated on the basis of sales. [11] The figures are for 1889.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued.

	Items.		1871.	1881.	1891.	1901.	1906.
	Exports, Domestic, by classes—						
1	Vegetable products (except chemicals, fibres and wood)..	$	–	–	13,742,557	25,541,567	55,828,252
2	Animals and their products (except chemicals and fibres).	$	–	–	36,399,140	68,465,332	84,570,644
3	Fibres, textiles and textile products	$	–	–	872,628	1,880,539	2,602,903
4	Wood, wood products and paper.	$	–	–	25,351,085	33,099,915	45,716,762
5	Iron and its products	$	–	–	556,527	3,778,897	4,705,296
6	Non-ferrous metals and their products	$	–	–	1,618,955	33,395,096	28,455,786
7	Non-metallic minerals and their products	$	–	–	3,988,584	7,356,324	7,817,475
8	Chemicals and allied products..	$	–	–	851,211	791,975	1,784,800
9	All other commodities	$	–	–	5,291,051	3,121,741	4,022,038
	Total exports, domestic	$	57,630,024	83,944,701	88,671,738	177,431,386	235,483,956
	Imports for Consumption—						
10	Vegetable products (except chemicals, fibres and wood)..	$	–	–	24,212,140	38,036,757	50,330,667
11	Animals and their products (except chemicals and fibres).	$	–	–	8,080,862	14,022,896	23,616,835
12	Fibres, textiles and textile products	$	–	–	28,670,141	37,284,752	59,292,868
13	Wood, wood products and paper.	$	–	–	5,203,490	8,196,901	14,341,947
14	Iron and its products	$	–	–	15,142,615	29,955,936	49,436,840
15	Non-ferrous metals and their products	$	–	–	3,810,626	7,159,142	17,527,922
16	Non-metallic minerals and their products (except chemicals)..	$	–	–	14,139,024	21,255,403	33,757,284
17	Chemicals and allied products..	$	–	–	3,697,810	5,692,564	8,251,378
18	All other commodities	$	–	–	8,577,246	16,326,568	27,184,539
	Total imports	$	84,214,388	90,488,329	111,533,954	177,930,919	283,740,280
	Steam Railways—						
19	Miles in operation	No.	2,695	7,331	13,838	18,140	21,353
20	Capital	$	257,035,188[1]	284,419,293	632,061,440	816,110,837	1,065,881,629
21	Passengers	No.	5,190,416[2]	6,943,671	13,222,568	18,385,722	27,989,782
22	Freight	ton	5,670,836[2]	12,065,323	21,753,021	36,999,371	57,966,713
23	Earnings	$	19,470,539[2]	27,987,509	48,192,099	72,898,749	125,322,865
24	Expenses	$	15,775,532[2]	20,121,418	34,960,449	50,368,726	87,126,434
	Electric Railways—						
25	Miles in operation	No.	–	–	–	675	814
26	Capital	$	–	–	–	–	–
27	Passengers	No.	–	–	–	120,934,656	237,655,074
28	Freight	ton	–	–	–	287,926	506,024
29	Earnings	$	–	–	–	5,768,283	10,966,871
30	Expenses	$	–	–	–	3,435,162	6,675,037
	Canals—						
31	Passengers carried	No.	100,377	118,136	146,336	190,428	256,500
32	Freight	ton	3,955,621	2,853,230	2,902,526	5,665,259	10,523,185
	Shipping (Sea-going)—						
33	Entered	ton	2,521,573	4,032,946	5,273,935	7,514,732	8,895,353
34	Cleared	"	2,594,460	4,071,391	5,421,261	7,028,330	7,948,076
35	Total	"	5,116,033	8,104,337	10,695,196	14,543,062	16,843,429
	Shipping (Inland International)—						
36	Entered	ton	4,055,198	2,934,503	4,098,434	5,720,575	9,352,653
37	Cleared	"	3,954,797	2,763,592	4,009,018	5,766,171	8,536,090
38	Total	"	8,009,995	5,698,095	8,107,452	11,486,746	17,888,743
	Shipping (Coastwise)—						
39	Entered	ton	–	7,664,863	12,835,774	17,927,959	23,543,604
40	Cleared	"	–	7,451,903	12,150,356	16,516,832	22,780,458
41	Total	"	–	15,116,766	24,986,130	34,444,796	46,324,062
42	Telegraphs, Government, miles of line		–	1,947	2,699	5,744	6,829
43	Telegraphs, other, miles of line.		–	–	27,866	30,194	31,506
44	Telephones	No.	–	–	–	63,192	–
45	Motor vehicles	"	–	–	–	–	2,130[3]

[1] Year 1876. [2] Year 1875. [3] Motor vehicles in 6 provinces numbered 2,130 in 1907.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued.

1911.	1916.	1921.	1924.	1925.	1926.	1927.	1928.[4]	
84,556,886	257,249,193	482,924,672	430,932,150	443,298,877	606,058,672	574,994,162	555,110,598	1
69,693,263	138,375,083	188,359,937	140,423,284	163,031,415	190,975,417	167,291,589	165,845,096	2
1,818,931	15,097,691	18,783,884	8,055,083	9,711,720	8,940,046	7,665,563	10,904,073	3
56,334,695	83,116,282	284,561,478	273,354,778	253,610,024	278,674,960	284,120,267	284,543,396	4
9,884,346	66,127,099	76,500,741	66,975,571	57,405,940	74,735,077	74,284,824	62,753,934	5
34,000,996	66,036,542	45,939,377	65,911,171	90,370,788	97,476,270	80,639,197	90,840,441	6
10,038,493	11,879,741	40,121,892	26,776,330	20,728,986	24,568,845	28,509,838	25,280,805	7
2,900,379	15,948,480	19,582,051	15,559,956	16,209,820	17,498,128	16,574,753	17,892,904	8
5,088,564	87,780,527	32,389,669	17,362,733	14,699,783	16,428,376	18,077,313	15,036,359	9
274,316,553	741,610,638	1,189,162,701	1,045,351,056	1,069,067,353	1,315,355,791	1,252,157,506	1,228,207,606	
79,214,342	95,426,024	261,081,364	186,468,685	173,585,839	203,417,431	213,098,121	238,185,560	10
30,671,908	38,657,514	61,722,390	45,026,734	41,491,969	49,185,558	53,214,135	65,790,021	11
87,916,282	96,191,485	243,608,342	173,795,660	165,440,757	184,761,831	183,583,931	186,995,814	12
26,851,936	18,277,420	57,449,384	40,976,833	38,185,383	40,403,096	47,962,298	51,750,924	13
91,968,180	92,055,895	245,625,703	173,473,503	134,684,441	181,196,800	229,426,485	259,573,668	14
27,655,874	29,448,661	55,553,902	43,432,617	41,111,550	47,692,985	52,747,842	60,190,036	15
53,335,826	53,427,531	206,095,113	155,899,393	131,013,294	139,033,940	156,784,707	153,049,438	16
12,489,776	19,258,326	36,334,612	26,088,041	24,760,237	28,404,276	31,844,715	33,572,113	17
42,620,479	65,448,278	72,688,072	48,205,401	46,659,067	53,232,815	62,227,271	59,848,892	18
452,724,603	508,201,134	1,240,158,882	893,366,867	796,932,537	927,328,732	1,030,892,505	1,108,956,466	
25,400	37,434	39,363	40,061	40,352	40,352	40,572	41,078[6]	19
1,528,689,201	1,892,125,774	2,164,687,636	3,413,865,613	3,471,080,909	3,560,948,932	3,637,837,497	–	20
37,097,718	43,503,459	46,793,251	42,921,809	41,458,084	42,686,166	41,840,550	40,503,000[6]	21
79,884,282	109,659,088	103,131,132	106,429,355	109,850,925	122,476,822	125,967,439	139,600,000[6]	22
188,733,494	261,888,654	458,003,891	445,923,877	455,297,288	493,599,754	499,064,207	564,000,000[6]	23
131,034,785	180,542,259	422,581,205	382,483,908	372,149,656	389,503,452	407,646,286	443,000,000[6]	24
1,224	1,674	1,687	1,737	1,738	1,684	1,652	–	25
111,532,347	154,895,584	177,187,436	213,767,660	221,769,220	215,808,520	222,552,717	–	26
426,296,792	580,094,167	719,305,441	726,497,729	725,491,101	748,710,836	781,398,194	–	27
1,228,362	1,936,674	2,285,886	2,546,928	2,706,312	3,493,457	3,269,028	–	28
20,356,952	27,416,285	44,536,833	49,439,559	49,626,231	51,723,199	53,506,401	–	29
12,096,134	18,099,906	35,945,316	36,125,213	35,426,487	36,453,709	37,616,568	–	30
304,904	263,648	230,129	208,587	208,692	197,561	210,884	188,146	31
38,030,353	23,583,491	9,407,021	12,868,551	14,130,667	13,477,663	17,488,311	18,720,441	32
11,919,339	12,616,927	12,516,503	18,497,025	20,470,379	22,837,720	23,224,281	24,240,847	33
10,377,847	12,210,723	12,400,226	18,521,377	20,510,647	22,817,276	22,925,488	23,973,787	34
22,297,186	24,827,656	24,916,729	37,018,402	40,981,026	45,654,996	46,149,769	48,214,634	35
13,286,102	16,486,778	14,828,454	18,926,976	17,616,105	14,117,099	14,862,096	16,745,632	36
11,846,257	16,406,670	14,903,447	19,001,995	19,341,920	15,474,732	16,319,794	18,843,531	37
25,132,359	32,893,448	29,731,901	37,928,971	36,958,025	29,591,831	31,181,890	35,589,163	38
34,280,669	35,624,074	28,567,545	39,268,712	40,480,372	41,770,480	43,124,919	45,381,586	39
32,347,265	33,085,350	27,773,668	38,096,416	40,139,447	41,117,175	42,617,467	44,146,030	40
66,627,934	68,709,424	56,341,213	77,365,128	80,619,819	82,887,655	85,742,386	89,527,616	41
8,446	10,699	11,207	11,210	10,681	10,722	10,737	10,765	42
33,905	38,552	41,577	43,532	41,045[5]	42,239[5]	41,994	43,012	43
302,759	548,421	902,090	1,072,454	1,142,876	1,201,008	1,259,987	–	44
21,519	123,464	465,378	652,121	728,005	836,794	945,672	1,076,819	45

[4] The figures for 1928 are subject to revision. [5] Excluding U.S. lines of Canadian National Telegraphs.
[6] Approximate.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued.

	Items.		1871.	1881.	1891.	1901.	1906.
	Post Office—						
1	Revenue	$	803,637	1,344,970	2,515,823	3,421,192	5,993,343
2	Expenditure	$	994,876	1,876,658	3,161,676	3,837,376	4,921,577
3	Money orders issued	$	4,546,434	7,725,212	12,478,178	17,956,258	37,355,673
	Dominion Finance—						
4	Customs Revenue	$	11,841,105	18,406,092	23,305,218	28,293,930	46,053,377
5	Excise Revenue	$	4,295,945	5,343,022	6,914,850	10,318,266	14,010,220
6	Total Ordinary Revenue	$	19,335,561	29,635,298	38,579,311	52,514,701	80,139,360
7	Revenue per head	$	5·50	6·83	7·96	9·72	12·99
8	Total Ordinary Expenditure	$	15,623,082	25,502,554	36,343,568	46,866,368	67,240,641
9	Expenditure per head	$	4·44	5·88	7·50	8·67	10·90
10	Total Disbursements	$	19,293,478	33,796,643	40,793,208	57,982,866	83,277,642
11	Disbursements per head	$	5·48	7·79	8·42	10·73	13·49
12	Gross Debt	$	115,492,683	199,861,537	289,899,230	354,732,433	392,269,680
13	Assets	$	37,786,165	44,465,757	52,090,199	86,252,429	125,226,702
	Net Debt	$	77,706,518	155,395,780	237,809,031	268,480,004	267,042,978
	Provincial Finance—						
14	Revenue, Ordinary, Total	$	6,090,783[1]	7,858,698	10,693,815	14,074,991	23,027,122
15	Expenditure, Ordinary, Total	$	5,180,872[1]	8,119,701	11,628,353	14,146,059	21,169,868
	Note Circulation—						
16	Bank Notes	$	20,914,637	28,516,692	33,061,042	50,610,205	70,638,870
17	Dominion Notes	$	–	–	16,176,316[5]	27,898,509[5]	49,941,426[5]
	Chartered Banks—						
18	Capital paid-up	$	37,095,340	59,534,977	60,700,697	67,035,615	91,035,604
19	Assets	$	125,273,631	200,613,879	269,307,032	531,829,324	878,512,076
20	Liabilities to the public	$	80,250,974	127,176,249	187,332,325	420,003,743	713,790,553
21	Deposits payable on demand	$	–	–	–	95,169,631	165,144,569
22	Deposits payable after notice	$	–	–	–	221,624,664	381,778,705
	Total deposits[2]	$	56,287,391	94,346,481	148,396,968	349,573,327	605,968,513
	Savings Banks—						
23	Deposits in Post Office	$	2,497,260	6,208,227	21,738,648	39,950,813	45,736,488
24	Deposits in Government Banks	$	2,072,037	9,628,445	17,661,378	16,098,144	16,174,134
25	Deposits in Special Banks	$	5,766,712	7,685,888	10,982,232	19,125,097	27,399,194
	Loan Companies[3]—						
26	Assets	$	8,392,464	73,906,638	125,041,146	158,523,307	232,076,447
27	Liabilities	$	8,392,464	71,965,017	123,915,704	158,523,307	232,076,447
28	Deposits	$	2,399,136	13,460,268	18,482,959	20,756,910	23,046,194
	Trust Companies—						
29	Shareholders' assets	$	–	–	–	–	–
30	Trust funds, liabilities	$	–	–	–	–	–
	Dominion Fire Insurance—						
31	Amount at risk, Dec. 31	$	228,453,784	462,210,968	759,602,191	1,038,687,619	1,443,902,244
32	Premium income for year	$	2,321,716	3,827,116	6,168,716	9,650,348	14,687,963
	Provincial Fire Insurance—						
33	Amount at risk, Dec. 31	$	–	–	–	–	–
34	Premium income for year	$	–	–	–	–	–
	Dominion Life Insurance—						
35	Amount at risk, Dec. 31	$	45,825,935	103,290,932	261,475,229	463,769,034	656,260,900
36	Premium income for year	$	1,852,974	3,094,689	8,417,702	15,189,854	22,364,456
	Provincial Life Insurance—						
37	Amount at risk, Dec. 31	$	–	–	–	–	–
38	Premium income for year	$	–	–	–	–	–
	Business Transacted—						
39	Bank clearings.....Thousands of	$	–	–	580,644	1,871,062	3,950,701
40	Bank debits.....Thousands of	$	–	–	–	–	–
	Education—						
41	Enrolment	No.	803,000	891,000	993,000	1,083,000	1,173,009
42	Average daily attendance	"	–	–	–	669,000	743,496
43	Number of teachers	"	13,559	18,016	23,718	27,126	32,250
44	Total Public Expenditure	$	–	–	–	11,044,925	16,368,244

[1] Average, 1869–1872. [2] Including amounts deposited elsewhere than in Canada from 1901–1928. [3] Including Building Societies and Trust Companies (1871-1911). [4] The figures for 1928 are subject to revision. [5] As at June 30. [6] Active assets only.

NOTE.

In the foregoing Summary, the statistics of immigration, fisheries (1871–1916), trade, shipping, the Post Office, the public debt, revenue and expenditure and the Post Office and Government Savings Banks

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—concluded.

1911.	1916.	1921.	1924.	1925.	1926.	1927.	1928.[4]	
9,146,952	18,858,410	26,331,119	29,100,492	28,581,993	31,024,464	29,378,697	30,529,155	1
7,954,223	16,009,139	24,661,262	28,305,937	29,873,802	30,499,686	31,007,698	32,379,196	2
70,614,862	94,469,871	173,523,322	159,855,115	163,519,320	177,840,231	188,219,777	200,773,403	3
71,838,089	98,649,409	163,266,804	121,500,798	108,146,871	127,355,143	141,968,678	156,985,818	4
16,869,837	22,428,492	37,118,367	38,181,747	38,603,489	42,923,549	48,513,160	57,400,898	5
117,780,409	172,147,838	434,386,537	396,837,682	346,834,479	380,745,506	398,695,776	422,717,983	6
16·34	21·42	49·43	43·37	37·42	40·55	41·88	43·77	7
87,774,198	130,350,727	361,118,145	324,813,190	318,891,901	320,660,479	319,548,173	336,167,961	8
12·18	16·22	41·09	35·49	34·40	34·15	33·57	34·81	9
122,861,250	339,702,502	528,283,199	370,589,247	351,169,803	355,186,423	358,556,751	378,716,791	10
17·04	42·27	60·11	40·50	37·89	37·83	37·67	39·21	11
474,941,487	936,987,802	2,902,482,117	2,819,610,470	2,818,066,523	2,768,779,184	2,726,298,717	2,677,137,243	12
134,899,435	321,831,631	561,603,133[6]	401,827,195[6]	400,628,837[6]	379,048,085[6]	378,464,347[6]	380,237,010[6]	13
340,042,052	615,156,171	2,340,878,984	2,417,783,275	2,417,437,686	2,389,731,099	2,347,834,370	2,296,850,233	
40,706,948	50,015,795	102,030,458	127,896,047	132,398,729	146,450,904	156,845,780	–	14
38,144,511	53,826,219	102,569,515	135,159,185	136,648,242	144,183,178	152,211,883	–	15
89,982,223	126,691,913	194,621,710	166,136,765	165,235,168	168,885,995	172,100,763	176,716,979	16
99,921,354	176,816,006	271,531,162	226,002,628	212,681,059	190,004,824	184,898,003	201,171,816	17
103,009,256	113,175,353	129,096,339	122,409,504	118,831,327	116,638,254	121,666,774	122,839,879	18
1,303,131,260	1,839,286,709	2,841,782,079	2,701,427,011	2,789,619,061	2,864,019,213	3,029,680,616	3,323,163,195	19
1,097,661,393	1,596,905,337	2,556,454,190	2,438,711,000	2,532,831,231	2,604,601,786	2,758,325,545	3,044,742,165	20
304,801,755	428,717,781	551,914,643	511,218,736	531,180,578	553,322,935	596,069,007	677,467,295	21
568,976,209	780,842,383	1,289,347,063	1,198,246,414	1,269,542,584	1,340,559,021	1,399,062,201	1,496,608,451	22
980,433,788	1,418,035,429	2,264,586,736	2,130,621,760	2,221,160,611	2,277,192,043	2,415,132,261	2,610,594,865	
43,330,579	40,008,418	29,010,619	25,156,149	24,662,060	24,035,669	23,402,337	23,463,210	23
14,673,752	13,519,855	10,150,189	9,055,091	8,949,073	8,794,875	8,519,706	7,640,566	24
34,770,386	40,405,037	58,576,775	64,245,811	65,837,254	67,241,344	69,940,351	72,695,422	25
389,701,988	70,872,297	96,698,810	101,919,837	110,638,667	120,321,095	134,669,734	–	26
389,701,988	70,872,297	95,281,122	101,111,692	109,527,773	119,445,317	134,492,018	–	27
33,742,513	8,987,720	15,868,926	15,970,077	18,660,122	21,316,150	27,019,323	–	28
–	7,826,943	10,237,930	12,056,259	12,453,916	13,195,277	13,682,713	–	29
–	47,162,220	87,811,965	137,391,026	147,317,841	157,756,647	183,504,814	–	30
2,279,868,346	3,720,058,236	6,020,513,832	7,224,475,267	7,583,297,679	8,051,444,136	8,287,732,966	8,773,828,173	31
20,575,255	27,783,852	47,312,564	49,833,718	51,040,075	52,595,923	51,375,639	54,868,529	32
–	849,915,678	1,269,764,435	1,037,552,176	1,215,135,191	1,286,255,476	1,110,596,830	–	33
–	3,902,504	5,545,549	4,818,055	5,717,880	6,068,701	5,314,189	–	34
950,220,771	1,422,179,632	2,934,843,848	3,763,996,472	4,159,019,848	4,610,196,334	5,044,408,834	5,609,032,167	35
31,619,626	48,093,105	99,015,031	130,109,022	145,480,207	160,746,413	174,731,364	192,944,917	36
–	348,097,229	222,871,178	172,467,486	168,703,528	147,821,972	184,975,573	–	37
–	5,311,003	4,389,008	5,208,555	4,810,012	3,991,126	4,881,297	–	38
7,346,381	10,315,853	16,811,287	17,008,079	16,761,512	17,715,099	20,568,437	21,554,938	39
–	–	–	27,157,474	23,126,000	30,358,031	36,093,503	43,476,959	40
1,356,879	1,622,351	1,869,643	2,013,158	2,034,080	2,083,498	2,076,284	–	41
870,801	1,140,793	1,335,454	1,506,698	1,524,665	1,547,992	1,563,212	–	42
40,516	50,307	56,607	62,302	62,394	63,840	66,004	–	43
37,971,374	57,362,734	112,976,543	119,484,033	121,034,234	122,701,259	125,876,375	–	44

relate to the fiscal years ended June 30 up to 1906, and from then on to the years ended March 31. Agricultural, dairying, fisheries (1922–26), mineral, manufacturing, banking, insurance, loan and trust companies statistics relate to the calendar years and railway statistics to the years ended June 30, 1871–1916, and to the calendar years 1921 and 1924–1928. Canal statistics are those of the navigation seasons. The telegraph statistics relate to the fiscal years for Government lines and to the calendar years for other lines.

ERRATA.

P. 500. Table 7. The three 1927 percentages for the United States should be changed fractionally to read 59·50, 79·34 and 66·64.

P. 503. In the latter part of Table 11, the percentage of "Non-ferrous metals and their products" in 1926 should be reduced from 6·38 to 6·21. The difference of 0·17 p.c. must necessarily be divided among the other eight classes to give a total of 100·00. This requires slight changes in the second decimal places.

P. 925. Knox College, Toronto, had 33 men students in 1927-28. The number of students was not reported in the previous academic year.

CHAPTER I.—PHYSIOGRAPHY.

PART I.—GEOGRAPHICAL FEATURES.

Situation.—The Dominion of Canada comprises the whole northern half of the North American continent except the United States territory of Alaska, and Labrador, a part of the colony of Newfoundland. It is bounded on the west by the Pacific ocean and Alaska; on the south by the 49th parallel, the Great Lakes, the St. Lawrence river and additional lines set out by the Ashburton Treaty, signed Aug. 9, 1842; and on the east by the Atlantic ocean, the gulf of St. Lawrence, the territory of the coast of Labrador, as defined by the award of the Privy Council, Mar. 1, 1927, and Davis strait. As regards the far north, Canada includes all the lands in the area bounded on the east by a line passing midway between Greenland and Baffin, Devon and Ellesmere islands to the 60th meridian of longitude, following this longitude to the pole, and on the west by the 141st meridian of longitude, following this longitude to the pole. The southernmost point is Middle island in lake Erie, in north latitude 41° 41′, while from east to west the Dominion extends from about west longitude 57°—at the southernmost point of the boundary with Labrador—to west longitude 141°, the boundary with Alaska. Canadian territory thus extends over 84° of longitude and 48° of latitude.

Area.—The area of the Dominion (as revised on the basis of the results of recent exploration in the north) is 3,684,723 square miles, a figure which may be compared with that of 3,743,529 square miles for the United States and its dependent territories, 3,776,700 the total area of Europe, 2,974,581 the total area of Australia, 4,277,170 the total area of China inclusive of dependencies, 3,275,510 the area of Brazil, 1,802,577 the area of India, 121,633 the area of the British Isles and 13,491,977 the area of the British Empire. By comparison with the last two figures, Canada is seen to be over 30 times as large as the British Isles and to comprise over 27 p.c. of the total area of the British Empire.

Political Subdivisions.—Canada is divided from east to west into the following provinces:—the Atlantic Maritime provinces of Prince Edward Island, Nova Scotia and New Brunswick, all three comparatively small in area; Quebec, covering a strip south of the St. Lawrence and the whole territory north of the St. Lawrence and east of the Ottawa to Hudson strait, less the territory of the coast of Labrador; Ontario, extending northward from the Great Lakes to Hudson bay; Manitoba, Saskatchewan and Alberta, the provinces of the interior continental plain, extending from 49° to 60° north latitude; and British Columbia, the province of the western mountain and Pacific coast region, also extending from 49° to 60°. North of the 60th parallel of latitude, the country is divided into the Yukon Territory and the Northwest Territories, the latter area composed of the provisional districts of Mackenzie, Keewatin and Franklin. In actual area the three Maritime provinces, covering a total land area of 51,163 square miles, make up but 1·4 p.c. of the total land area of the country. Quebec, the largest in area of all the provinces, covers 16·5 p.c. of the country's aggregate land area. Ontario constitutes 10·3 p.c., Manitoba 6·5 p.c., Saskatchewan 6·9 p.c., Alberta 7·1 p.c., British Columbia 10·0 p.c., the Yukon Territory 5·8 p.c., and the provisional districts of Franklin 15·5 p.c., Keewatin 6·1 p.c., and Mackenzie 13·9 p.c. (see Table 1, p. 5).

Prince Edward Island.—This, the smallest province of the Dominion, lies at the south of the gulf of St. Lawrence and is separated from the mainland of the continent by Northumberland strait. It is 150 miles in length and varies from 4 miles to 30 in width, covering an area of 2,184 square miles, some 200 square miles more than the state of Delaware and slightly more than half the area of the island of Jamaica in the British West Indies. Its rich red soil and red sandstone formations make up a distinctive and even topography, no point in the island attaining a greater altitude than 390 feet above sea level. A climate tempered by the surrounding waters of the gulf and yet free from the rigours of Atlantic storms, combined with numerous rivers, sheltered harbours and rolling plains, offers great inducements to the pursuit of agriculture and of fishing. The province is noted for its predominance in the fox-farming industry, its lobster canneries, and its production of oats and potatoes.

Nova Scotia.—The province of Nova Scotia is 386 miles in length by from 50 to 100 miles in width, a long and rather narrow strip of land lying parallel to the Maine and New Brunswick coast and joined to the latter by the isthmus of Chignecto. It includes at its north the island of Cape Breton, which is separated from the mainland by the strait of Canso. The total area of the province is 21,428 square miles, a little over 2,000 square miles less than the combined area of Belgium and Holland. Cape Breton island, at the mouth of the gulf of St. Lawrence and sheltering Prince Edward Island from the Atlantic, is roughly 100 miles in length with an extreme breadth of 87 miles, its area of 3,120 square miles enclosing the salt water lakes of Bras d'Or, connected with the sea at the north by two natural channels and at the south by the St. Peters ship canal. The ridge of mountainous country running through the centre of the Nova Scotia mainland divides it roughly into two slopes, that facing the Atlantic being generally rocky, barren and open to the sweep of Atlantic storms, while the other, facing the bay of Fundy and the gulf of St. Lawrence, consists for the most part of fertile arable plains and river valleys, and is noted for its general farming and fruit farming districts. The Atlantic coast is deeply indented with numerous excellent harbours.

New Brunswick.—With a total area of 27,985 square miles, New Brunswick may be compared to Scotland with its area of 30,405 square miles. The conformation of the province is also rather similar to that of Scotland, for the country, although not mountainous, is diversified by the occurrence of a great number of low hills and valleys. While New Brunswick is essentially a part of the mainland, the bay of Chaleur at the north, the gulf of St. Lawrence and Northumberland strait at the east, the bay of Fundy at the south and Passamaquoddy bay at the southwest, provide the province with a very extensive sea coast. Although larger in area than Nova Scotia, New Brunswick does not cover as many degrees of latitude, its most southern point being a little south of 45° north latitude and its most northern a little north of 48°, while Nova Scotia extends roughly from the 43rd to the 47th parallel. To its southwest is a group of islands belonging to the province, the most important of which are Grand Manan, Campobello, and the West Isles. The soil of these islands, similar to much of that on the mainland, is generally fertile, but only a small proportion of it is under cultivation. New Brunswick has been called the best watered country in the world; numerous rivers provide access to extensive lumbering areas in its interior and to many of the most attractive hunting and fishing resorts in the Dominion.

Quebec.—Quebec might with considerable accuracy be included among the Maritime provinces, for the gulf of St. Lawrence is really a part of the Atlantic,

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production of timber and also contain large mineral deposits, particularly of copper-gold ore. About three-fifths of the area of this province is underlain with the Precambrian rocks which have been found so rich in minerals in Northern Ontario and Quebec.

Saskatchewan.—The central prairie province, contained within the western boundary of Manitoba, the 49th and 60th parallels of latitude, and the 110th meridian, covers an area of 251,700 square miles, but slightly less than that of Manitoba, and greater by 5,000 square miles than the combined areas of the British Isles and Norway. The country consists for the most part of open rolling prairie at an average altitude of 1,500 feet above sea-level, while in the north it assumes a more broken aspect, and is as yet but slightly developed. The climate is quite different from that of Eastern Canada, with less precipitation and perhaps slightly more severe features than are encountered in many other parts of the country, but is nevertheless most favourable to plant and animal growth. The northern districts are abundantly watered by lakes and rivers and are rich in timber resources.

Alberta.—Lying between Saskatchewan on the east and the Rocky mountains and the 120th meridian on the west, and bounded on the north and south by the Northwest Territories and the United States respectively, is the province of Alberta. Its area is slightly greater than that of Saskatchewan or Manitoba, comprising a total of 255,285 square miles, over 8,600 square miles greater than the combined areas of the British Isles and Norway. Formerly an almost exclusively ranching country, it has now become a great wheat-producing region, the frontier of the grain-growing area now approximating to the line of the foothills of the Rockies. In the southwest, considerable coal and oil mining are carried on; lumbering is important in the more mountainous western parts and in the north, while some ranching is still pursued in the less populous sections. The climate of Alberta is a particularly pleasant one, cooler in summer than more eastern parts of the country and tempered in winter by the "Chinook" winds.

British Columbia.—The province of British Columbia is in some respects the most favoured part of Canada. Within its boundaries are reproduced all the varied climates of the Dominion and almost every natural feature, while some of its climatic and geographical conditions are peculiar to the province. Extending from the Rockies to the Pacific and from the 49th to the 60th parallel of latitude, its limits contain an area of 355,855 square miles, about three times the area of Italy, slightly less than three times the area of the British Isles and but slightly less than the combined area of the British Isles, Norway and Italy. The many islands of the Pacific coast, notably Vancouver island, with an area of about 13,500 square miles, and the Queen Charlotte group, are included in the province and are noted for their temperate climate and abundant natural resources. The mines, timber limits, fisheries and agricultural resources of the province are remarkable for their quality and extent.

Yukon and Northwest Territories.—The vast area of 1,516,758 square miles is included within the boundaries of Canada's northern subdivisions, the Yukon Territory and the three provisional districts of the Northwest Territories. This is over twelve times the area of the British Isles, nearly half the area of the United States, and more than the combined areas of the Argentine Republic and Chile in South America. Much of these northern regions is uninhabited, large areas of them even unexplored, but none the less they are of considerable potential economic value, owing to their possibilities in agricultural and pastoral production, to their mineral deposits, such as the Yukon gold fields, as well as to their forest resources and their furs.

Summary of Land and Water Area.—For the convenience of the reader, the total land and water area of the Dominion, together with its distribution into provinces and territories, is shown in Table 1.

1.—Land and Water Area of Canada, by Provinces and Territories, as in 1928.

Provinces.	Land.	Water.	Total Land and Water.
	sq. miles.	sq. miles.	sq. miles.
Prince Edward Island	2,184	–	2,184
Nova Scotia	21,068	360	21,428
New Brunswick	27,911	74	27,985
Quebec	583,895	10,539	594,434
Ontario	365,880	41,382	407,262
Manitoba	231,926	19,906	251,832
Saskatchewan	240,200	11,500	251,700
Alberta	250,925	4,360	255,285
British Columbia	353,416	2,439	355,855
Yukon	206,427	649	207,076
Northwest Territories—			
Franklin	546,532	7,500	554,032
Keewatin	218,460	9,700	228,160
Mackenzie	493,225	34,265	527,490
Total	**3,542,049**	**142,674**	**3,684,723**

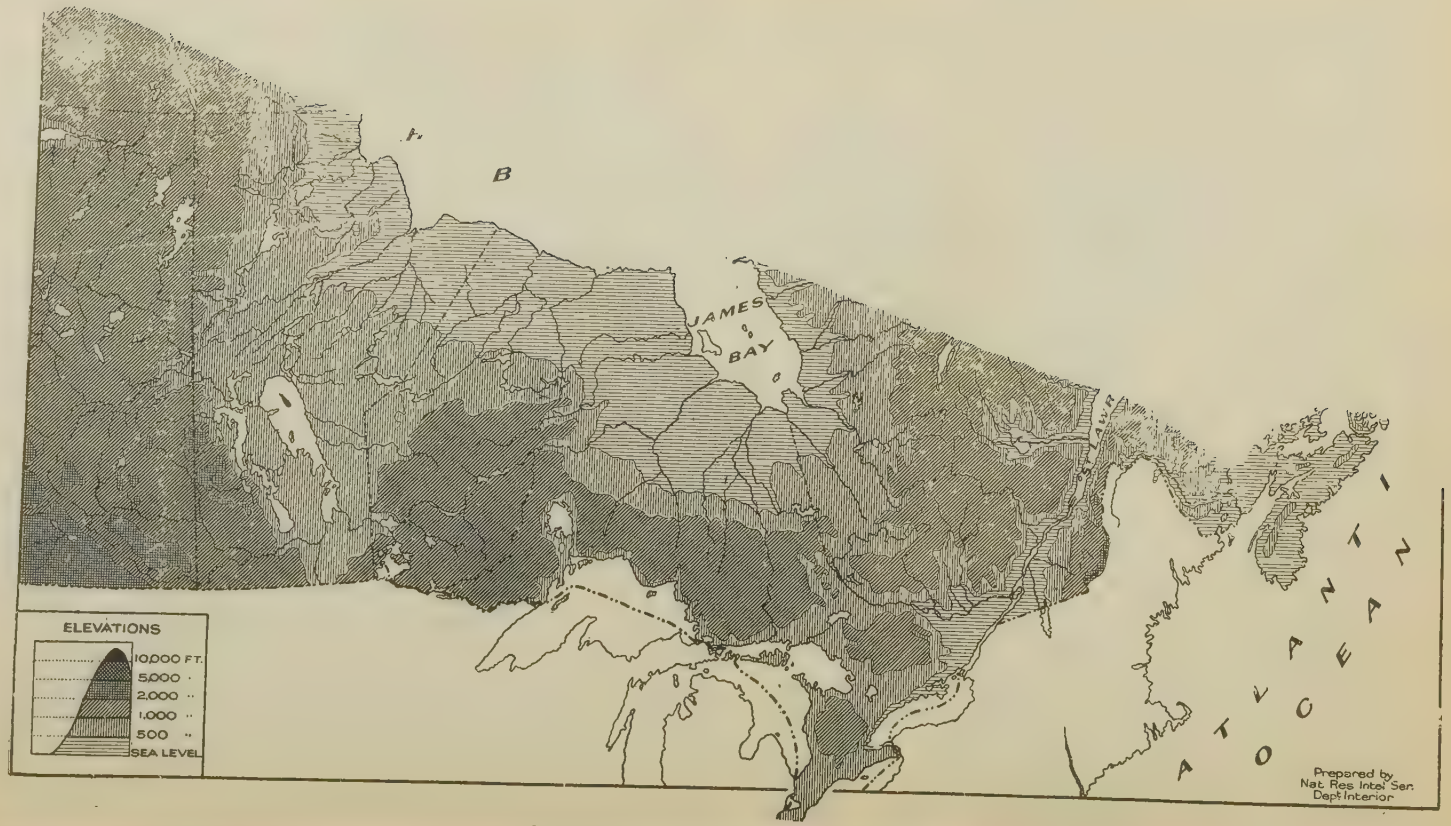
The water area, as given above, is exclusive of Hudson bay, Ungava bay, the bay of Fundy, the gulf of St. Lawrence and all other tidal waters, excepting that portion of the river St. Lawrence which is between Pointe-des-Monts and the foot of lake St. Peter, in Quebec.

Section 1.—Orography.

The topographical features of the present surface of the North American continent admit of its division, in Canada, into several orographic provinces. The exposed surface of the old Precambrian continent forms one of the largest divisions and has been called the Canadian Shield, the Archæan Peneplain and in its southern portion, the Laurentian Highland. The mountainous country of the west constitutes the Cordilleras, while the mountains of eastern United States, in their continuation across the border, form the Appalachian highland of Eastern Canada. The Great Plains, with various subdivisions, occupy the area between the mountainous area of the west and the great, roughened surface of the Canadian Shield. The St. Lawrence Lowlands lie between the Laurentian and Appalachian Highlands. Within the borders of the Canadian Shield an area on the southern margin of Hudson bay has been referred to as the "clay belt". It occupies a part of the basin that during the glacial period was submerged and covered with a coating of clay which smoothed over its inequalities and concealed most of the underlying rocks. Since its emergence the surface has been but slightly altered by drainage channels cut across it.

Orographical maps of Eastern and Western Canada, showing elevations above sea-level, will be found on pages 6 and 8 of this volume.

Canadian Shield.—The portion of the Precambrian continent whose exposed surface still forms a large part of Canada has an area of about two and a half million square miles. Its northern border crosses the Arctic archipelago and the eastern lies beyond Baffin island and Labrador and reaches the depressed area occupied by the St. Lawrence river, a short spur or point crossing this valley at the outlet of lake Ontario to join the Adirondack mountains in New York. The southern boundary runs from the spur west to Georgian bay, skirts the north shore of



Orography of Eastern Canada and Labrador.

lake Huron and sweeps almost entirely around the ancient depressed area occupied by lake Superior. The western edge, from the lake of the Woods and lake Winnipeg, bears northwest to the western end of lake Athabaska and passes through the basins occupied by Great Slave and Great Bear lakes, reaching the Arctic ocean east of the Mackenzie River delta. In detail, the surface features of the Canadian Shield are irregular; but, viewed broadly, it has the conformation of a great plain, depressed toward the centre and in the north and slightly elevated along the eastern and southern borders, where it presents a rather steep outward slope. The general elevation in the eastern portion is under 2,000 feet, and over the larger part of the plain is about 1,000 feet. The highest portion is along the northeastern margin, where it presents a steep face to the sea, rising to a maximum altitude of about 6,000 feet.

Appalachian Region.—The continuation of the Green mountains of Vermont into Canada may be traced in the Notre Dame mountains, which approach the St. Lawrence below Quebec and, continuing with more easterly trend, form the highland of the Gaspé peninsula. Over a large part of the region, these hills hardly attain the dignity of mountains, but peaks rising 3,500 feet above the nearby coast are found in the Gaspé peninsula. The continuation of the White mountains of New Hampshire is found in the highlands of Maine and New Brunswick, the continuity being shown quite plainly by the rock-folding and other evidences of the great earth movements which caused the topography. An additional ridge apparently forms the present province of Nova Scotia, and although the highlands of that province in few places rise to elevations greater than 1,500 feet, the rock structure indicates that it was a mountainous country at no very remote geological period.

St. Lawrence Lowlands.—The southern interior of the continent consists of a plain of low relief, bordered on the east by the Appalachian mountains, on the west by the Cordilleran mountain systems, and on the north by the Laurentian plateau. This plain, in its Canadian portion, is known as the St. Lawrence Lowlands, and extends from a short distance below Quebec city to lake Huron, with a length of 600 miles and an area of 35,000 square miles. To the northeast it becomes reduced in width, and in the vicinity of Quebec is represented by a narrow plateau or shelf on each side of the St. Lawrence river. The triangular area beyond, in which is the island of Anticosti, is structurally related to the central lowlands. The St. Lawrence Lowlands may be divided into three sections:—(1) the St. Lawrence river plain, separated from (2) the Eastern Ontario basin, by a point of crystalline rocks, and (3) the Ontario peninsula, a slightly more elevated plain whose eastern border is a steep escarpment, the eastern outcrop of a heavy limestone bed which underlies the western peninsula.

Great Plains.—A great area, including many diverse features, lies to the east of the Cordilleras. The portion that is included under the term Great Plains extends from the southwestern edge of the ancient surface, forming the Canadian Shield, to the eastern edge of the mountainous region of the Cordilleras. In the belt traversed by the railway lines a three-fold division into prairie steppes, rising one above the other, is clearly recognizable, though the divisions are not distinguishable in the region farther north to which the term prairie is not applicable. For the purpose of description, these three divisions are adopted, and a fourth is added for the broken hilly country of the foot-hills. The first or eastern division comprises the plain lying between the Canadian Shield and the plateau formed of Cretaceous sediments; the second extends from the edge of this plateau westward to the erosion remnants of former Tertiary deposits; and the third stretches from this line west-

Orography of Western Canada.

ward to the foot-hills. North of the prairie country these distinctions are less noticeable, and divisions two and three become merged into one.

Cordilleran Region.—The western part of the American continent is more or less mountainous. The Andean chain, which extends throughout the length of South America and broadens out in the United States and in Canada, has an average width of over 500 miles. This region, covering about 600,000 square miles in Canada, is the most elevated in the Dominion, many of the summits reaching heights of 10,000 feet, with occasional peaks over 13,000 feet above sea-level. The mountainous tract forming the Cordilleras can be divided broadly into three parallel bands; a series of plateaus and mountains, comprised in the Columbia, Interior, Cassiar and Yukon systems, forming the central part, referred to as the Central Belt; another series of parallel ridges east of the central plateaus, formed of fault rocks and folds and including the Rocky and Arctic systems, known as the Eastern Belt; and a third division between the plateau country and the Pacific, composed of the Pacific and Insular systems, called the Western Belt.

Following is a list of the principal named Canadian Cordilleran peaks exceeding 11,000 feet in elevation:—

Mountain Peaks.	Elevation.	N. Lat.		W. Long.		Range.
Alberta—	ft.	°	′	°	′	
Alberta	11,874	52	14	117	36	Rocky Mts.
Alexandra[1]	11,214	51	59	117	12	"
Assiniboine[1]	11,870	50	56	115	42	"
Athabaska	11,452	52	07	117	11	"
Coleman	11,000	52	06	116	55	"
Columbia[1]	12,294	52	09	117	27	"
Deltaform[1]	11,235	51	18	116	15	"
Diadem	11,060	52	19	117	00	"
Forbes	11,902	51	48	116	56	"
Fryatt	11,026	52	33	117	54	"
Hector	11,135	51	34	116	15	"
Hungabee[1]	11,457	51	20	116	17	"
Joffre[1]	11,316	50	32	115	12	"
King Edward[1]	11,400	52	10	117	30	"
Kitchener	11,500	52	13	117	19	"
Lyell[1]	11,495	51	58	117	06	"
Lefroy[1]	11,230	51	22	116	17	"
Lunette[1]	11,150	50	52	115	39	"
Sir Douglas[1]	11,174	50	43	115	20	"
Snow Dome[1]	11,340	52	11	117	19	"
Stutfield	11,320	52	15	117	29	"
Temple	11,636	51	21	116	15	"
The Twins	11,675 12,085	52	13	117	12	"
Victoria[1]	11,365	51	23	116	18	"
Wilson	11,000	51	58	116	45	"
Woolley	11,170	52	18	117	25	"
British Columbia—						
Bush	11,000	54	00	120	15	Rocky Mts.
Bryce	11,507	52	03	117	20	"
Clemenceau	12,001	–	–	–	–	"
Chown	11,500	53	26	119	26	"
Delphine	11,076	50	28	116	25	Selkirk Mts.
Fairweather[2]	15,300	58	54	137	31	St. Elias Mts.
Farnham	11,342	50	29	116	27	Selkirk Mts.
Goodsir	11,676	51	12	116	24	Rocky Mts.
Hasler	11,113	51	09	117	25	Selkirk Mts.
Huber	11,051	51	22	116	18	"
Jumbo	11,217	50	24	116	32	Rocky Mts.
King George	11,226	50	36	115	24	"
Resplendent	11,240	53	05	119	07	"
Robson	12,972	53	07	119	08	"
Root[2]	12,860	58	59	137	30	St. Elias Mts.
Selwyn	11,013	51	09	117	24	Selkirk Mts.
Sir Alexander	11,000	54	00	120	15	Rocky Mts.
Sir Sanford	11,590	51	39	117	52	Selkirk Mts.
The Helmet	11,160	51	11	116	20	Rocky Mts.
Whitehorn	11,101	53	08	119	16	"

[1] These peaks are on the interprovincial boundary beyween Alberta and British Columbia.
[2] These peaks are on the international boundary between British Columbia and Alaska.

Mountain Peaks.	Elevation.	N. Lat.		W. Long.		Range.
	ft.	°	′	°	′	
Yukon[1]—						
Alverstone	14,490	60	21	139	02	St. Elias Mts.
Augusta	14,070	60	18	140	28	"
Baird	11,375	60	19	140	31	"
Badham	12,625	60	38	139	47	"
Cook	13,754	60	10	139	59	"
Craig	13,250	–	–	–	–	"
Hubbard	14,950	61	16	140	53	"
Jeanette	11,700	60	20	140	43	"
King	17,130	60	35	140	39	"
Logan	19,850	60	35	140	21	"
Lucania	17,147	61	01	140	28	"
Malaspina	12,150	60	19	140	34	"
McArthur	14,400	60	36	140	13	"
Newton	13,811	60	19	140	52	"
St. Elias	18,008	60	18	140	57	"
Steele	16,644	61	06	140	19	"
Strickland	13,818	61	14	140	45	"
Vancouver	15,696	60	21	139	42	"
Walsh	14,498	61	00	140	00	"
Wood	15,885	61	14	140	31	"

[1] These peaks are on or near the Yukon-Alaska boundary.

NOTE.—The highest mountain east of the Rockies, with the exception of the Torngats in Labrador, peaks of which exceed 6,000 feet, is Tabletop mountain (recently re-named Mount Jacques Cartier by the Geographic Board of Canada) in N. lat. 48° 59′, W. long. 65° 56′, Gaspé district, Quebec, the summit of which is 4,350 feet above sea level.

Section 2.—Rivers and Lakes.

General.—The waterways of Canada constitute not only one of its most remarkable geographic features, but one of the most vital elements of its national existence. The water area of 142,674 square miles is unusually large, constituting almost 4 p.c. of the total area of the country, whereas the water area of the United States forms but slightly more than 1½ p.c. of its area. The Great Lakes, with the St. Lawrence river, form the most important system of waterways on the continent and one of the most notable fresh water transportation routes in the world. Their value in facilitating the cheap and speedy shipment of grain from the Prairie Provinces cannot be overestimated. These lakes never freeze over, but usually most of their harbours are closed by ice about the middle of December and remain frozen over until the end of March or the beginning of April.

Drainage Basins.—The great drainage basins of Canada are the Atlantic (524,900 square miles), the Hudson bay (1,486,000 square miles), the Arctic (1,290,000 square miles), the Pacific (387,300 square miles) and the gulf of Mexico (12,365 square miles). Table 2 indicates the drainage areas of the more important rivers.

2.—Drainage Basins of Canada.

NOTE.—Owing to overlapping and to the fact that minor basins are omitted, the totals of each drainage basin do not represent an addition of the drainage areas as given. Tributaries and sub-tributaries are indicated by indentation of the names. The Gulf of Mexico basin is that part of the southern area of the Prairie Provinces drained by the Missouri and Mississippi rivers and their tributaries.

Drainage Basins.	Area Drained.	Drainage Basins.	Area Drained.
	sq. miles.		sq. miles.
Atlantic Basin.		**Hudson Bay Basin.**	
Miramichi	5,400	Koksoak	62,400
St. John	21,500	George	20,000
St. Lawrence	309,500	Big	26,300
Saguenay	35,900	Eastmain	25,500
St. Maurice	16,200	Rupert	15,700
French	8,000	Broadback	9,800
Nipigon	9,000	Nottaway	29,800
Ottawa	56,700	Moose	42,100
Lièvre	3,500	Abitibi	11,300
Gatineau	9,100	Missinaibi	10,600
		Albany	59,800
Total	**524,900**	Kenogami	20,700
		Attawapiskat	18,700

2.—Drainage Basins of Canada—concluded.

Drainage Basins.	Area Drained.	Drainage Basins.	Area Drained.
Hudson Bay Basin—concluded.	sq. miles.	**Pacific Basin**—concluded.	sq. miles.
Winisk	24,100	Stikine	20,300
Severn	38,600	Nass	7,400
Hayes	28,000	Skeena	19,300
Nelson	370,800	Fraser	91,700
Winnipeg	44,000	Thompson	21,800
English	20,600	Nechako	15,700
Red	63,400	Blackwater	5,600
Assiniboine	52,600	Quesnel	4,500
Saskatchewan	158,800	Chilcotin	7,500
North Saskatchewan	54,700	Columbia	39,300
South Saskatchewan	65,500	Kootenay	15,500
Red Deer	18,300	Okanagan	6,000
Bow	11,100	Kettle	3,160
Belly	8,900	Pend d'Oreille	1,190
Churchill	115,500	**Total**	**387,300**
Kazan	32,700		
Dubawnt	58,500		
Total	**1,486,000**	**Arctic Basin.**	
Pacific Basin.		Backs	47,500
		Coppermine	29,100
		Mackenzie	682,000
Yukon	145,800	Liard	100,700
Porcupine	24,600	Hay	25,700
Stewart	21,900	Peace	117,100
Pelly	21,300	Athabaska	58,900
Lewes	35,100	**Total**	**1,290,000**
White	15,000		
Alsek	11,200	**Gulf of Mexico Basin**	**12,365**
Taku	7,600		

St. Lawrence River System.—Most important of the lakes and rivers of Canada is the chain of the Great Lakes with their connecting rivers, the St. Lawrence river and its tributaries. This chain is called the St. Lawrence River system. The Great Lakes, separating the province of Ontario from the United States and connected by a series of canals with the St. Lawrence river, allow vessels drawing not over 14 feet of water to proceed from the Atlantic ocean to the interior of the Dominion as far as Fort William and Port Arthur, twin cities situated on lake Superior, practically half way across the continent.

Other River Systems.—Apart from the St. Lawrence, the great waterway of the eastern half of the Dominion, other systems also merit some attention. The Saskatchewan river, for example, flowing eastward from the Rocky mountains to lake Winnipeg and thence northward by the Nelson river into Hudson bay, drains a great part of the plains of the western provinces. In the north, the Mackenzie river, with its tributaries the Slave, Liard, Athabaska and Peace rivers, follows the northerly slope of the Great Plain and empties into the Arctic ocean, its waters having traversed in all a distance of 2,525 miles. The Yukon river, after draining a great part of the Yukon Territory, flows northward through Alaska into the Behring sea after a course of 1,765 miles. The Fraser, Columbia, Skeena and Stikine rivers flow into the Pacific ocean after draining the western slopes of the mountains of British Columbia. Table 3 gives the lengths of the principal rivers with their tributaries, classified according to the course taken by their waters.

3.—Lengths of Principal Rivers and Tributaries in Canada.

NOTE.—In this table the tributaries and sub-tributaries are indicated by indentation of the names. Thus the Ottawa and other rivers are shown as tributary to the St. Lawrence, and the Gatineau and other rivers as tributary to the Ottawa.

Rivers.	Miles.
Flowing into the Atlantic Ocean.	
Natashkwan (to Labrador boundary)	160
Romaine	270
Moisie	210
Ste. Marguerite	130
St. John	390
Miramichi	135
St. Lawrence (to head of St. Louis)	1,900
Manikuagan	310
Outarde	270
Bersimis	240
Saguenay (to head of Peribonka)	405
Peribonka	280
Mistassini	185
Ashwapmuchuan	165
Chaudière	120
St. Maurice	325
Mattawin	100
St. Francis	165
Richelieu	210
Ottawa	685
North	70
Rouge	115
North Nation	60
Lièvre	205
Gatineau	240
Coulonge	135
Dumoine	80
South Nation	90
Mississippi	105
Madawaska	130
Petawawa	95
Moira	60
Trent	150
Grand	140
Thames	135
French (to head of Sturgeon)	180
Sturgeon	110
Spanish	153
Mississagi	140
Thessalon	40
Nipigon (to head of Ombabika)	130
Flowing into Hudson Bay.	
Hayes	300
Nelson (to lake Winnipeg)	390
Nelson (to head of Bow)	1,600
Red (to head of lake Traverse)	355
Red (to head of Sheyenne)	545
Assiniboine	450
Souris	450
Qu'Appelle	270
Winnipeg (to head of Firesteel)	475
English	330
Saskatchewan (to head of Bow)	1,205
North Saskatchewan	760
South Saskatchewan (to head of Bow)	865
Bow	315
Belly	180
Red Deer	385
Churchill	1,000
Beaver	305
Kazan	455
Dubawnt	580
Severn	420
Winisk	295

Rivers.	Miles.
Flowing into Hudson Bay—concluded.	
Attawapiskat	465
Albany (to head of Cat river)	610
Moose (to head of Mattagami)	340
Mattagami	275
Abitibi	340
Missinaibi	265
Harricanaw	250
Nottaway (to head of Waswanipi)	400
Waswanipi	190
Rupert	380
Eastmain	375
Big	320
Great Whale	365
Leaf	295
Koksoak (to head of Kaniapiskau)	535
Kaniapiskau	445
George	365
Flowing into the Pacific Ocean.	
Columbia (total)	1,150
Columbia (in Canada)	465
Kootenay	400
Fraser	695
Thompson (to head of North Thompson)	270
North Thompson	185
South Thompson	120
Chilcotin	145
Blackwater	140
Nechako	255
Stuart	220
Porcupine	525
Skeena	335
Nass	205
Stikine	335
Alsek	200
Yukon (mouth to head of Nisutlin)	1,765
Yukon (Int. boundary to head of Nisutlin)	655
Stewart	320
White	185
Pelly	380
Macmillan	200
Lewes	338
Flowing into the Arctic Ocean.	
Anderson	465
Horton	275
Hay	350
South Nahanni	250
Petitot	260
Twitya	200
Mackenzie (to head of Finlay)	2,525
Peel	365
Arctic Red	230
Liard	550
Fort Nelson	260
Athabasca	765
Pembina	210
Slave	265
Peace (to head of Finlay)	1,065
Finlay	250
Parsnip	145
Smoky	245
Little Smoky	185
Coppermine	525
Backs	605

The Great Lakes.—Table 4 shows the length, breadth, area, elevation above sea-level and maximum depth of each of the Great Lakes. Particularly notable is the depth of lake Superior and the shallowness of lake St. Clair and lake Erie.

4.—Area, Elevation and Depth of the Great Lakes.

Lakes.	Length.	Breadth.	Maximum depth.	Area.	Elevation above sea-level.
	miles.	miles.	feet.	square miles.	feet.
Superior	383	160	1,180	31,810	602·29
Michigan	320	118	870	22,400	581·13
Huron	247	101	750	23,010	581·13
St. Clair	26	24	23	460	575·62
Erie	241	57	210	9,940	572·52
Ontario	180	53	738	7,540	246·17

Lake Superior, with its area of 31,810 square miles, is the largest body of fresh water in the world. As the international boundary between Canada and the United States passes through the centre of lakes Superior, Huron, Erie, St. Clair and Ontario, only a part of the areas of these lakes given in the above statement is Canadian. The whole of lake Michigan is within United States territory. From the western end of lake Superior to the mouth of the St. Lawrence there is, with the aid of the canal system, a continuous navigable waterway. The total length of the St. Lawrence river from the head of the St. Louis river to Pointe-des-Monts, at the entrance of the gulf of St. Lawrence, is 1,900 miles. The tributaries of the St. Lawrence, several of which have themselves important tributaries, include the Ottawa river, 685 miles long, the St. Maurice river, 325 miles long, and the Saguenay (to head of Peribonka), 405 miles long.

Other Inland Waters.—In addition to the Great Lakes there are large bodies of inland water in other parts of Canada. Of these only the following principal lakes, with their respective areas, need be mentioned:—in Quebec, lake Mistassini (870 square miles); in Ontario, lake Nipigon (1,730 square miles); in Manitoba, lake Winnipeg (9,459 square miles); lake Winnipegosis (2,086 square miles) and lake Manitoba (1,817 square miles); in Saskatchewan, Reindeer lake (1,765 square miles); in Alberta, lake Athabaska (2,762 square miles). All these are within the boundaries of the provinces as at present constituted and are exclusive of lakes situated in the Northwest Territories, the largest of which are Great Bear lake (12,200 square miles) and Great Slave lake (9,800 square miles) in the district of Mackenzie.

Table 5 gives a list of the principal lakes of Canada by provinces, with the area of each in square miles. The table corresponds with the delimitation of the provinces as altered by the Boundary Extension Acts, 1912 (2 Geo. V, cc. 32, 40 and 45).

5.—Areas of Principal Canadian Lakes, by Provinces.

Names of Lakes.	Areas.	Names of Lakes.	Areas.
	square miles.		square miles.
Nova Scotia—		Ontario—concluded.	
Bras d'Or	230	Superior, portion in Ontario	11,178
Little Bras d'Or	130	Timagami	90
		Timiskaming, part	52
		Trout, English river	134
New Brunswick—		Trout, Severn river	233
Grand	74	Wanapitei	45
		Woods, lake of the, part in Ontario	1,100
Quebec—			
Abitibi, portion in Quebec	25	Manitoba—	
Albanel	160	Athapapuskow	92
Apiskigamish	392	Atikameg	100
Burnt	56	Cedar	452
Champlain, portion in Quebec	3	Cormorant	141
Chibougamau	138	Cross (Nelson River)	245
Clearwater	478	Dauphin	200
Evans	231	Dog	64
Expanse	59	Etawney	546
Gull	125	Gods	319
Great Long	140	Granville	207
Indian House	150	Island	65
Ishimanikuagan	87	Kiskittogisu	
Kakabonga	65	Kiskitto	
Kaniapiskau	441	Kississing	
Kipawa	117	Manitoba	
Lower Seal	220	Moose	
Manuan	113	Namew, part	
Mattagami	87	North Indian	
Memphremagog, part in Quebec	28	Nueltin, part	
Minto	400	Pelican (west of Winnipegosis)	
Mistassini	870	Playgreen	
Nichikun	208	Reed	
Olga	50	Red Deer, west of lake Winnipego	
Payne	475	Reindeer, part	
Pipmakan	100	St. Martin	
Pletipi	138	Saskenam	
Quinze, Lac des	46	Setting	
St. Francis, river St. Lawrence, part	59	Sipiwesk	
St. John	350	South Indian	
St. Louis	56	Swan	
St. Peter	130	Todatara, part	
Timiskaming, part	65	Waterhen	
Two Mountains	54	Wekusko	
Upper Seal	270	Winnipeg	
Wakonichi	44	Winnipegosis	
Waswanipi	100	Woods, lake of the, part	
Ontario—			
Abitibi, portion in Ontario	331	Saskatchewan—	
Dog	61	Amisk	
Eagle	128	Athabaska, part	1,700
Erie, portion in Ontario	5,019	Candle	56
Huron, including Georgian bay, portion in Ontario	14,331	Canoe	68
Kesagami	90	Churchill	213
La Croix, portion in Ontario	23	Cold, part	36
Long	75	Cree	406
Manitou, Manitoulin island	38	Cumberland	93
Mille Lacs, Lac des	104	Doré	242
Muskoka	54	Ile-à-la-Crosse	187
Namakan, portion in Ontario	19	Johnstone	123
Nipigon	1,730	Last Mountain	88
Nipissing	330	Little Quill	70
Ontario, portion in Ontario	3,727	Manitou	56
Rainy, portion in Ontario	240	Methy	77
Rice	43	Montreal	162
St. Clair, portion in Ontario	257	Namew, part	73
St. Francis, river St. Lawrence, part	24	Peter Pond	302
St. Joseph	245	Plonge, Lac la	64
Sandy	245	Primrose, part	173
Seul	392	Quill	151
Simcoe	271	Reindeer, part	1,520
Scugog	39	Ronge, Lac la	450
Sturgeon, English river	106	Smoothstone	94
		Wollaston	768

5.—Areas of Principal Canadian Lakes, by Provinces—concluded.

Names of Lakes.	Areas.	Names of Lakes.	Areas.
	square miles.		square miles.
Alberta—		Northwest Territories—	
Athabaska, part	1,062	Aberdeen	475
Beaverhills	76	Aylmer	510
Biche, Lac la	97	Baker	975
Buffalo	69	Clinton-Colden	310
Calling	53	Dubawnt	1,600
Claire	570	Franklin	175
Cold, part	100	Garry	980
Lesser Slave	448	Gras, Lac de	450
Peerless	75	Great Bear	12,200
Primrose, part	8	Great Slave	9,800
Sullivan	60	Kaminuriak	360
Utikuma	85	Macdougall	265
		Maguse	540
		Martre, Lac la	1,335
British Columbia—		Mackay	250
Adams	62	Nueltin, part	260
Atlin, part	280	Nutarawit	350
Babine	173	Pelly	331
Chilko	160	Schultz	110
François	87	Thoalintoa	160
Harrison	89	Todatara, part	85
Kootenay	220	Yathkyed	860
Lower Arrow	80		
Okanagan	135		
Owikano	98	Yukon—	
Quesnel	100	Aishihik	107
Shuswap	124	Atlin, part	12
Stuart	140	Kluane	184
Tacla	135	Kusawa	56
Tagish, part	91	Laberge	87
Teslin, part	123	Marsh	32
Upper Arrow	120	Tagish, part	48
		Teslin, part	123

Section 3.—Islands.

The islands of Canada are among its most remarkable geographic features. They include the numerous unsurveyed and little-known areas of the Arctic regions, the fringe of both large and small islands off the Pacific coast, those of the Maritime Provinces and Quebec in the Atlantic ocean and the gulf of St. Lawrence, together with the islands of the Great Lakes and other inland waters. Of the Arctic islands, but little can be said. They are known to be of vast extent, Baffin, Victoria and Ellesmere, the three largest, being approximately 207,610, 80,450 and 78,400 square miles in area respectively, but Banks, North Devon, Southampton, North Somerset, Prince of Wales, Melville and Axel Heiberg are also of considerable size. Their economic possibilities, beyond scattered deposits of coal and other minerals, have not been established. The Pacific coast islands, with the exception of Vancouver island and the Queen Charlotte group, are small and dot the western coast of British Columbia from Dixon entrance to the southern boundary of the province. Vancouver island is 285 miles long and from 40 to 80 miles broad, covering an area of about 13,500 square miles, the mountain range which forms its backbone rising again to form the Queen Charlotte islands farther north. These islands figure largely in the mining, lumbering and fishing industries of the West.

On the eastern coast of the Dominion are the island province of Prince Edward Island, the island of Cape Breton (an integral part of Nova Scotia), Anticosti and the Magdalen group, included in the province of Quebec, and the islands of Grand Manan and Campobello, part of the province of New Brunswick, in the bay of

Fundy. Prince Edward Island is 2,184 square miles in area, Cape Breton 3,120 and Anticosti of about the same extent. Fishing activities in these eastern islands are important, while agriculture in Prince Edward Island and mining in Cape Breton are among the chief occupations of the inhabitants.

Manitoulin island in lake Huron and the Thousand Island group in the St. Lawrence river, at its outlet from lake Ontario, are the more important islands of the inland waters.

PART II.—GEOLOGY.

Section 1.—Geology of Canada.[1]

The outstanding feature of Canadian geology is the vast area underlain by formations of Precambrian age. These occupy nearly the whole of Canada east of a line joining lake Winnipeg and Great Bear lake, with the exception of the Maritime Provinces, the extreme southern parts of Ontario and Quebec and a part of Ontario adjacent to the southern coast of Hudson Bay. The Precambrian rocks include the oldest known geological formations and are the foundation of a part of the North American continent that has existed as a land mass at intervals throughout all that portion of geological time that has been recorded in sedimentary formations exposed on the face of the earth.

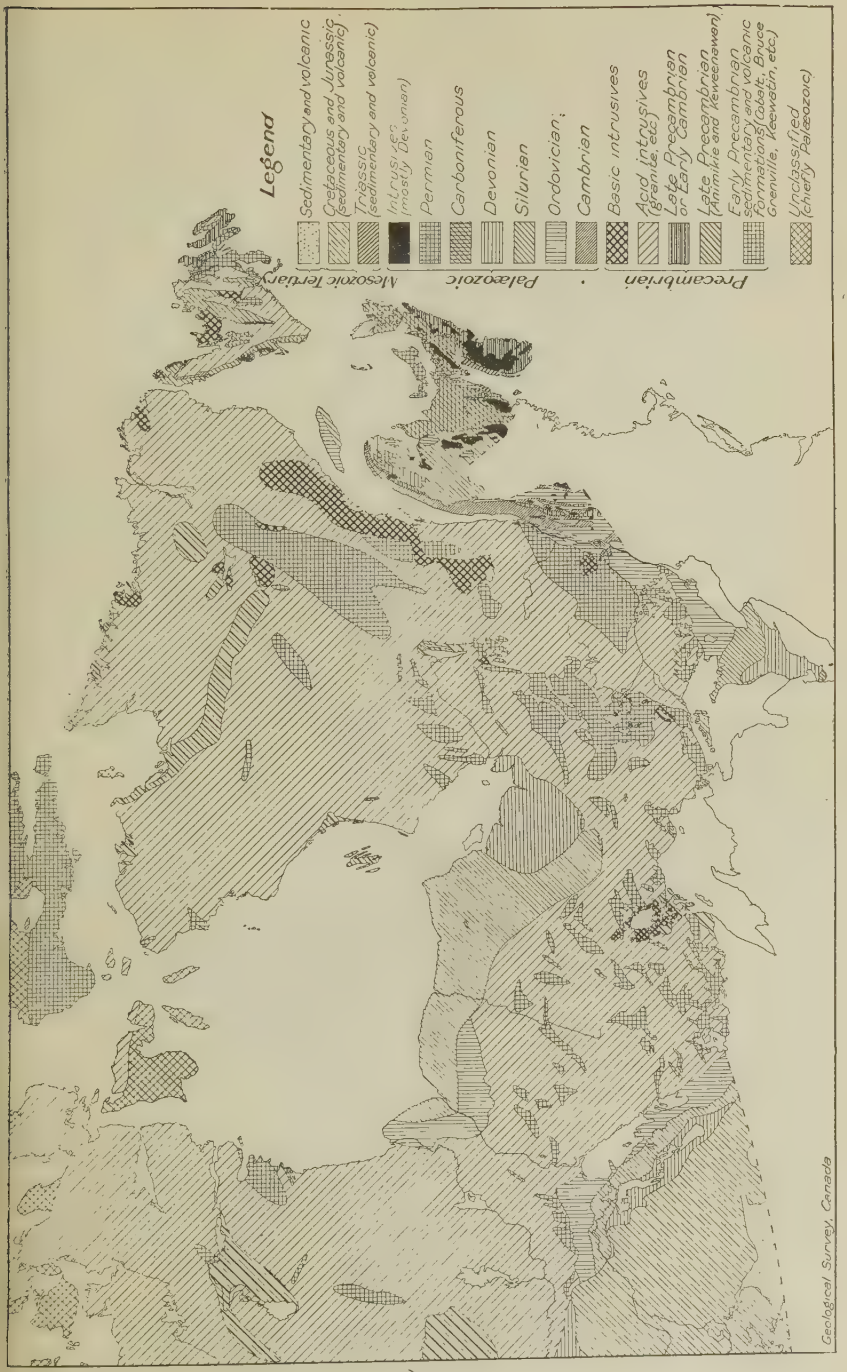
Another prominent feature is the wide extent of nearly flat-lying sedimentary formations of Palæozoic, Mesozoic and Cenozoic age that almost wholly surround the Precambrian area. They form a mantle spread out on a sloping shelf of Precambrian rocks and at one time probably extended over a great part of the Precambrian area. In few places was there even fairly continuous sedimentation throughout the three great geological periods, and the succession of strata is in most places broken and incomplete.

Approaching the Atlantic and Pacific coasts, the flat-lying sedimentary series give way to great assemblages of folded sedimentary and volcanic rocks pierced by granitic bodies and forming the Appalachian system of mountains on the east and the great Cordillera on the west. In the folding, rocks of Precambrian age are again brought to the surface. In the extreme north an analogous mountain range stretches from Greenland westward into Ellesmere island.

Subsection 1.—Topography.

The topography of Canada is the outward or surface expression of geological processes that have been in operation at the surface of the earth and at depth throughout geological time. It is the imprint made by the deposition of sediments, the folding of strata, the intrusion of igneous masses, the ejection of volcanic material, and the dissolving, eroding and transporting of rock matter by agencies acting at the surface. The slow rising and sinking of broad continental areas, the forming of great mountain ranges, and their gradual levelling, are all involved. The present land form is but a momentary expression of a continent that is undergoing eternal change.

[1] By Wyatt Malcolm, M.A., Geological Survey, Ottawa.



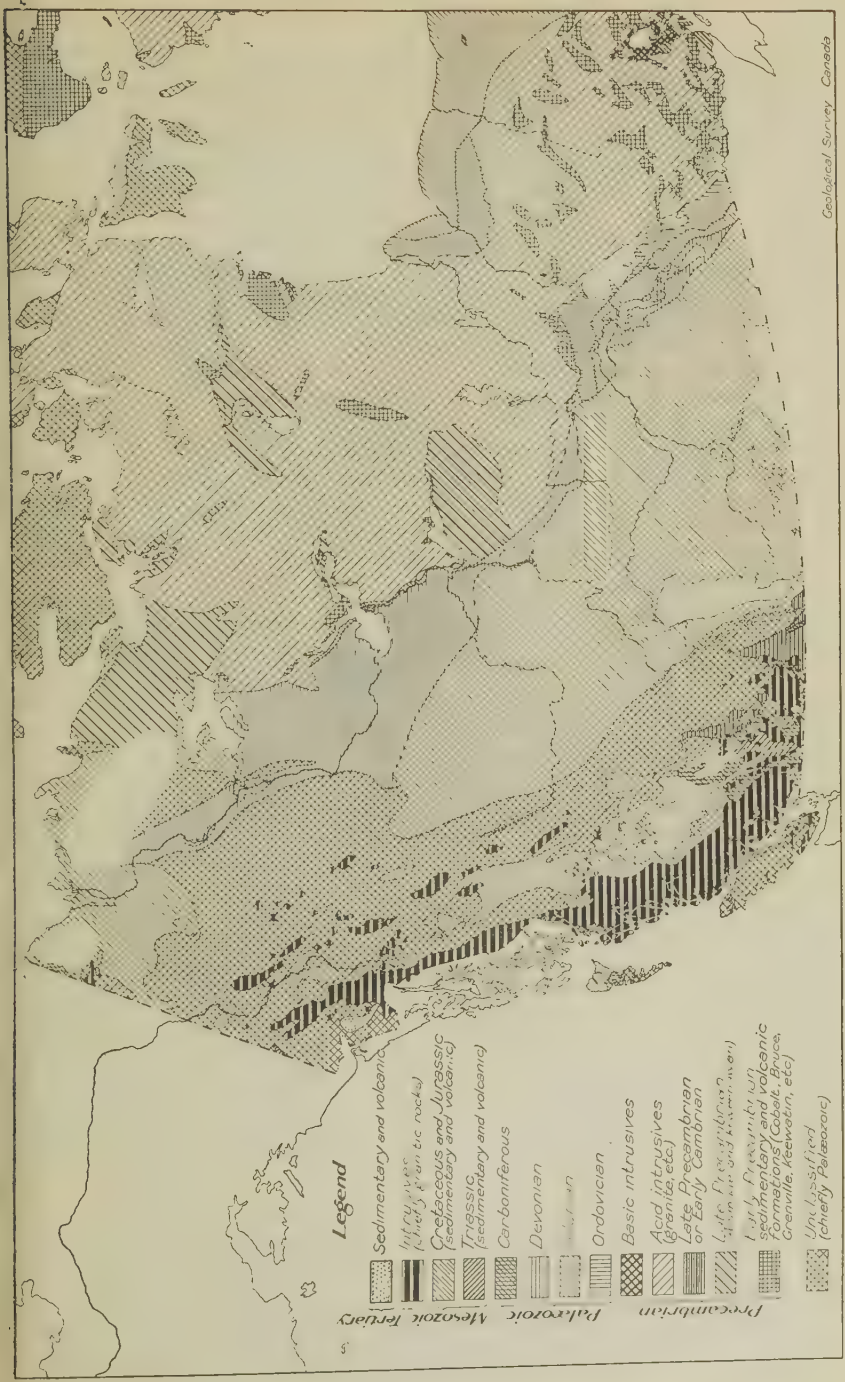
GEOLOGY OF EASTERN CANADA AND NEWFOUNDLAND.

The great area in Eastern Canada underlain by rocks of Precambrian age is known as the Canadian (or Precambrian) Shield or the Laurentian Plateau. It may be regarded as a subdued plateau or perhaps, more strictly speaking, a peneplanated surface that has been rejuvenated by Pleistocene glaciation and uplift. Its average elevation probably does not exceed 1,500 feet, and there are few areas except in the northeast that exceed 2,000 feet. In general the surface slopes gently to the surrounding plain and there are long stretches of the boundary in which there is no marked difference of elevation between the Precambrian Shield and the adjacent Palæozoic plain; there are other long stretches in which there is an abrupt rise of several hundred feet above the plain or the sea. The greatest known elevations are in the eastern part of Baffin island and along the coast of northern Labrador. In Labrador there are four peaks in the Torngats said to have an elevation of 6,000 feet. The Torngats are carved from the edge of an elevated tableland which is highest towards the Atlantic and sinks towards the west. The coast is one of the boldest and most rugged of the world, with nearly vertical cliffs rising 1,000 to 2,000 feet in height. Though the Canadian Shield is an area of low relief and has a remarkably even sky line, the surface is generally rugged, with successions of rocky hills, 100 to 200 feet high. Occasional exceptions occur in which there is a relief of several hundred feet, as in the hills on the north shores of lake Huron and lake Superior. The area is dotted with lakes, large and small, of irregular outline and with numerous islands. They are rock basins that spill their waters from one to another by short streams with rapids and falls. In an area of 250 square miles in western Ontario that cannot be considered exceptional, aerial surveys have shown that there are 700 lakes. There are well-defined deep trenches like that occupied by lake Timiskaming, related to faulting or other structural features. The Saguenay river flows in a trench that descends to more than 800 feet below sea level, and lake Superior, the largest body of fresh water on the face of the earth, fills a basin in the Canadian Shield that reaches about 400 feet below sea level.

Extending south and west from the Canadian Shield, and limited on the east by the Appalachian mountain system and on the west by the western Cordillera of America, is the great North American plain. The northeastern part of this plain occupies southern Ontario south of a line extending from Georgian bay to the east end of lake Ontario, that part of eastern Ontario lying between the Ottawa and St. Lawrence rivers, and part of Quebec lying adjacent to the St. Lawrence between Montreal and Quebec and extending in a very narrow belt down the river and including Anticosti island. The part of the plain west of the Canadian Shield is of wide extent, and stretches northward to the Arctic ocean between a line on the east approximately joining lake Winnipeg, lake Athabaska, Great Slave lake and Great Bear lake, and the foothills of the Rocky mountains on the west.

Although these areas are but parts of one great plain and are disconnected in Canada only because the Canadian Shield happens to project across the international boundary in a narrow belt east of lake Ontario and in a wide zone between lake Huron and lake of the Woods, they will for convenience of treatment be considered separately. Those parts lying in the basin of the St. Lawrence and the Great Lakes have been designated the St. Lawrence Lowlands, while the western area has been named the Interior Plains.

The part of the St. Lawrence Lowlands lying in the eastern angle of Ontario and in Quebec south of Montreal, and extending down the St. Lawrence, is comparatively flat and lies less than 500 feet above sea level. On the lower St.



GEOLOGY OF WESTERN CANADA.

Lawrence it is greatly narrowed by the near approach of the Appalachian system to the Canadian Shield. The part lying adjacent to lakes Ontario, Erie and Huron is of less even surface, has its greatest elevation of over 1,700 feet south of Georgian bay, and slopes rather gently to the Great Lakes. A striking topographical feature is the Niagara escarpment. This is an eastward-facing escarpment having a height of 250 to 300 feet and extending from Niagara peninsula northwest to Bruce peninsula.

The Interior Plains region is in general a rolling country with broad undulations and a slope eastward and northward of a few feet per mile, descending from an elevation of 3,000 to 5,000 feet near the mountains on the west to less than 1,000 feet at its eastern border. The elevation of the Canadian Pacific railway at Calgary is 3,439 feet and at Winnipeg 772 feet. The rolling character of the area is relieved by several flat-topped hills—erosion remnants rising hundreds of feet above the surrounding country, by flat areas that formed the beds of lakes of considerable extent, and by deeply incised river valleys. A striking feature is the broken escarpment of western Manitoba and eastern Saskatchewan, marking the rise of 400 to 1,000 feet from the Manitoba lowland to the upland of the west.

A lowland of considerable extent stretches for some distance into Ontario and Manitoba from the south shore of Hudson bay. The Arctic archipelago consists of large islands, many of which rise prominently from the sea as sloping table-lands, while others are comparatively low.

The Appalachian and Acadian regions occupy practically all that part of Canada lying east of the St. Lawrence, with the exception of the lowland west of a line joining Quebec city and lake Champlain. The Appalachian region is a continuation northward into the province of Quebec of three chains of the Appalachian system of mountains. The most westerly of these ranges stretches northeast into Gaspé peninsula, where it forms flat-topped hills over 3,000 feet high. Mount Jacques Cartier on Tabletop mountain has an elevation of 4,350 feet. The Acadian region, which includes New Brunswick, Nova Scotia, and Prince Edward Island, is an alternation of uplands and lowlands. The northwest part of New Brunswick is an upland with hills and ridges rising to 2,500 feet or higher. Adjacent to the bay of Fundy is a series of ridges rising in places to an elevation of 1,200 feet or more. Between these two New Brunswick uplands is a lowland forming the whole eastern coast of the province and converging towards the southwest. This lowland extends east so as to include Prince Edward Island, the western fringe of Cape Breton Island and the mainland of Nova Scotia north of the Cobequid mountains, which have an elevation of 800 to 1,000 feet. South of them lies a long narrow lowland stretching from Chedabucto bay to Minas basin and along the Cornwallis-Annapolis valley between North and South mountains. South of this is a highland sloping to the Atlantic coast and having an elevation at its highest part of about 700 feet. The northern part of Cape Breton island is a table-land 1,200 feet high, culminating in Ingonish mountain, with an elevation of 1,392 feet, the highest point in Nova Scotia.

The Cordilleran region, the mountainous area bordering the Pacific, extends northward from the United States through Canada into Alaska, and embraces nearly all of British Columbia and Yukon and the western edge of Alberta and the Northwest Territories. The eastern part of the Cordillera is occupied by the Rocky mountains. They consist of overlapping chains with peaks rising to heights of 10,000 to 12,000 feet. They extend northwest and die away towards the Liard river. North of this river the mountains with a similar trend lie 100 miles farther

east and are known as the Mackenzie mountains. The western part of the Cordillera is occupied by the Coast range and the mountains of Vancouver and Queen Charlotte islands. The Coast range rises to heights of 7,000 to 9,000 feet. Between the Rocky mountains and the Coast range lies a vast plateau system having elevations of 3,000 to 4,000 feet, and cut by deep river valleys. The plateau region merges into rugged mountain ranges as it approaches the Rocky mountains; it also breaks into mountains in northern British Columbia, but becomes subdued to a plateau again in the Yukon. A striking feature of the Cordillera is the deep trench that lies immediately to the west of the Rocky mountains, extends northwesterly from the international boundary into Yukon and is occupied by the headwaters of the Kootenay, Columbia and Fraser rivers and tributaries of the Peace and Liard rivers.

Subsection 2.—Geology.

Canadian Shield.—The Canadian Shield is underlain by rocks of Precambrian age. These consist of series of sedimentary and volcanic formations and igneous intrusives of great variety. They were subjected to mountain-building processes, folded, crushed and metamorphosed. Although the mountains were reduced nearly to their present level before the earliest Palæozoic sediments were deposited, the Precambrian area has, during a great part of recorded geological time, maintained itself as a continent, a land mass offering a stout barrier to the buffeting of the waves and stubborn resistance to the eroding action of the elements. The period of time represented by the Precambrian sedimentary deposits is probably much greater than that which has since elapsed.

Geologists do not agree on the main subdivisions of the Precambrian formations. They are, however, unanimous on one great unconformity which represents a long period of erosion and which divides the stratified rocks into two groups, the earlier group consisting of a great mass of volcanics with associated sedimentary rocks and the latter group consisting more fully of sediments. The earlier group is greatly folded and altered; the latter group has in general been less disturbed and altered. In the earlier group the most important series of rocks is that known as the Keewatin. The Keewatin consists essentially of lava flows accompanied in many places by tuffs and basic intrusives, and includes iron formation, which frequently is made up of thin layers of chert-like quartz, alternating with quartzose layers holding magnetite or hematite or both. Sedimentary rocks consisting of conglomeratic, sandy and slaty strata are frequently associated with the volcanics and are, in places, of considerable thickness and extent. They may underlie the volcanics, like the Couchiching of the Rainy Lake area, they may be interbedded with the volcanics, like the Doré formation of Michipicoten, or they may overlie the volcanics like the Timiskaming formation of northeastern Ontario and western Quebec. Between the volcanics and overlying sediments of northeastern Ontario and western Quebec there is an unconformity that is regarded by some geologists as of major importance. The early Precambrian formations occupy numerous areas of various sizes up to several hundred square miles in western Quebec, northern Ontario, eastern and central Manitoba, and to a less degree in Saskatchewan and the Northwest Territories.

The later Precambrian formations consist in a large measure of sedimentary rocks—conglomerates, quartzites and slates. In an area lying immediately north of lake Huron and stretching northeast to beyond lake Timiskaming lies a succession of sediments known as the Huronian. These consist of (a) the Bruce series, made

up of conglomerates, quartzites and impure dolomitic limestone with an aggregate thickness of 2,700 to 12,000 feet, and (b) the Cobalt series, made up of boulder conglomerate and other materials probably of glacial origin, overlain by quartzite and calcareous quartzite, with an aggregate thickness of 12,000 feet. An erosion interval of considerable time intervened between these two series. These strata are undulating with gentle dips except on the north shore of lake Huron and eastward, where they stand at high angles and represent the core of an ancient mountain range that probably flanked the southern edge of the continent.

In the vicinity of Port Arthur there is a series of nearly horizontal strata, consisting of conglomerate, iron formation and slate. This is the Animikie series. It probably belongs to the Huronian system and may be equivalent in age with the Whitewater series north of Sudbury, consisting of conglomerate, volcanic tuff, slate and sandstone. East of Port Arthur the Animikie is overlain by the Keweenawan series and several hundred feet of red conglomerate, sandstone, shale, calcareous beds, tuffs and lavas.

Strata, presumably of late Precambrian age, are known to occur on lake Athabaska, Great Slave lake, east of Great Bear lake, on Belcher islands, on the east of Hudson bay and at other points in the Ungava peninsula. In the southern part of Ungava peninsula sediments are found that bear a resemblance to the Grenville-Hastings group of southern Quebec and southeastern Ontario.

The Grenville-Hastings group consists of closely folded, highly altered sediments intruded by and in places interleaved with granite. They are in general rusty-weathering banded gneisses, quartzose gneisses grading into quartzites, crystalline limestones, amphibolites, pyroxene-rich rocks and volcanic schists. Pegmatite dykes are common and anorthosite occupies large areas. The Grenville-Hastings group forms a belt in the southern part of the Canadian Shield, extending east from Georgian bay. The formations have not as yet been indubitably correlated with the Keewatin and Huronian rocks to the north.

The Precambrian sediments have suffered intrusion at various times by granites. These have been unroofed at different stages in the history of the Precambrian, and pebbles of granite are found in the conglomerates as early as those of Keewatin age. So complete has been the unroofing of the granites that they are exposed over the greater portion of the Canadian Shield. Basic intrusives were common in later Precambrian times. Sills and dykes of diabase cut the late Precambrian sediments around lake Nipigon, west of lake Timiskaming and many other points. A thick laccolith is found in the Sudbury district.

The Canadian Shield was intensely glaciated during Pleistocene times, with the exception of the more elevated parts of the northern Labrador coast, and in general only a scant amount of soil was left, sufficient partially to conceal the rocks and maintain a forest growth. In some areas, as in part of northern Ontario and Quebec, adjacent to the Canadian National Railway, stratified fine sediments were deposited in lakes formed in front of the retreating glacier.

The Precambrian formations are prolific of mineral deposits of great number, variety and extent. They occur generally at or near the contact of the intrusives and the intruded rocks. Among them are the gold deposits of Porcupine and Kirkland lake, associated with intrusions of porphyry, the silver deposits of Cobalt, South Lorrain and Gowganda, associated with diabase sills, the enormous nickel-copper deposits of Sudbury, associated with norite of a thick laccolithic intrusion, the auriferous copper sulphides of western Quebec, the copper-zinc sulphides of Flinflon, and the iron ores and iron pyrites of many localities of Ontario; in the

Grenville-Hastings area are found deposits of galena, mica, graphite, feldspar, magnesite, fluorite, kaolin, molybdenite, talc and apatite.

St. Lawrence Lowlands.—The St. Lawrence Lowlands are divided into two parts by an arm of the Laurentian plateau that extends southward into New York state and across the St. Lawrence between Kingston and Brockville. They are underlain by nearly horizontal Palæozoic sediments dipping gently away from the Canadian Shield and deposited on the sloping surface of Precambrian rocks which, prior to the deposition of the Palæozoic strata, had been reduced to a physiographic condition similar to that existing on the Canadian Shield to-day.

The sediments are almost wholly of marine origin, consist mainly of limestone, magnesian limestone and shale, and range in age from late Cambrian to late Devonian.

In the Ottawa-Montreal division the latest strata are Ordovician; these, together with the Potsdam sandstone (Cambrian), have a thickness of about 6,000 feet. In the Great Lakes region of southern Ontario the Ordovician formations are succeeded upward by those of Silurian age and these in turn by strata of Devonian age. The Ordovician formations form a zone extending from Kingston to the Niagara escarpment and stretching northwest to Georgian bay and into Manitoulin island. The Silurian formations are exposed in the Niagara escarpment and westward in a belt 25 to 50 miles wide stretching northwest from Niagara peninsula into Manitoulin island. West of this nearly the whole of the area between lake Erie and lake Huron is underlain by Devonian limestones and shales. Each in turn is exposed over an area farther to the southwest than the older and underlying formation, so that in travelling westward from Kingston to Sarnia one passes over the bevelled edges of successively younger strata. Borings made in the township of Dawn show a thickness of nearly 3,900 feet of sedimentary rocks.

It is evident that the seas in which some of these sedimentary rocks were formed extended northward over the Precambrian rocks through Hudson bay into the Arctic ocean. The presence of outliers on lake St. John, lake Nipissing, and lake Timiskaming in the south, and on lake Nicholson west of Hudson bay, of broad areas of Ordovician, Silurian and Devonian formations south of Hudson bay, and of Cambrian, Ordovician, Silurian and Devonian formations on the islands of the northern part of Hudson bay and of the Arctic seas, is clearly indicative of wide submergence. On the Arctic islands formations of Carboniferous (with coal seams) and Triassic age are widespread, and there are patches of Tertiary sediments with lignite. There is also evidence of the occurrence of rocks of Mesozoic age in Moose River basin.

The St. Lawrence Lowlands were covered by the glaciers of Pleistocene time, and the bed rock is to a great extent concealed by thick deposits of glacial till. In places stratified deposits are found that formed in lakes at the edge of the retreating ice sheet. Marine deposits were laid down in an arm of the sea that extended up the St. Lawrence and Ottawa valleys above Ottawa.

The only intrusives worthy of mention are the igneous rocks of alkali types that form the Monteregian hills of southern Quebec, Mount Royal and seven others to the east. They are circular or oval hills that rise 600 to 1,200 feet above the plain and appear to be stock-like bodies or conduits that may have led to volcanic vents or larger masses of intrusives.

The mineral deposits are such as are usually found in the less altered sedimentary rocks. Petroleum has been produced in southern Ontario for over 60 years; natural gas has been produced for nearly 40 years in the counties bordering on lake Erie;

salt has for a great many years been obtained from thick beds lying at a depth of about 1,000 feet in the counties bordering on lake Huron and lake St. Clair; gypsum is produced in the Grand River valley; limestone and dolomite, utilized in chemical and metallurgical industries, are widespread; materials for construction, for brick, tile and cement manufacture are abundant.

Appalachian and Acadian regions.—The Appalachian and Acadian regions are composed of geological formations ranging from Precambrian through Palæozoic to Mesozoic. The Palæozoic sediments pass from dominantly marine formations upward into dominantly continental formations. A complete succession is not found and there are several hiatuses in sedimentation.

Sediments, probably of Precambrian age, occur in southeastern Quebec, southern New Brunswick, northern Cape Breton island and on the Atlantic coast of the mainland of Nova Scotia. The thick series of slates and quartzites, known as the Gold-bearing series, forms a belt occupying a very considerable part of the mainland of Nova Scotia, faces the Atlantic coast, and is probably of late Precambrian age.

During the Palæozoic period numerous disturbances took place in sedimentation; there were periods of uplift, of folding, and of erosion. Cambrian formations are found in southeastern Quebec, Ordovician formations are of extensive development in the Appalachian region from Vermont to Gaspé, Silurian and Devonian are well developed in Gaspé and the northwestern part of New Brunswick. Patches of Cambrian, Ordovician, Silurian and Devonian rocks are found in other parts of the Appalachian and Acadian regions.

The system of sediments most widely distributed in the Maritime provinces is the Carboniferous. The formations are mainly of continental deposition, although during Mississippian time a part of the area was submerged and received marine sediments. Towards the close of the Devonian period there was a period of intense mountain building and igneous activity. Granite batholiths of large size were formed in Nova Scotia and New Brunswick and of smaller size in Gaspé and southeastern Quebec. The upheaval was succeeded by intense erosion, for some of the granite batholiths were exposed in early Carboniferous time.

The Carboniferous system occupies the triangular lowland forming much of the southeastern half of New Brunswick, the part of Nova Scotia north of Cobequid mountains, part of the lowland to the south of these mountains, southwestern and northeastern Cape Breton island and Prince Edward Island. On Prince Edward Island the Carboniferous may pass upward into the Permian. In the Carboniferous system are found the coal measures of Sydney and Glace bay, of Inverness, Pictou and Cumberland counties, Nova Scotia, and of the Minto coal field, New Brunswick. The extensive gypsum deposits and the salt beds of Nova Scotia and New Brunswick are found in a formation of Mississippian age, and the bituminous shales of New Brunswick and Nova Scotia are also of early Carboniferous age. The Carboniferous system has in places been subjected to folding and faulting, but considerable areas have suffered little disturbance since these sediments were laid down.

Sandstones and lava flows of Triassic age are exposed on the bay of Fundy, particularly on the south coast. North Mountain is composed of basic lava flows capping Triassic sandstone. During the Pleistocene period the whole of the Appalachian and Acadian regions, with the exception of the higher parts of Gaspé, was subjected to glaciation.

The most important economic minerals of the Appalachian and Acadian regions are coal, asbestos, and gypsum. Reference has already been made to the occurrence of coal and gypsum. Asbestos occurs in altered peridotite in southeastern Quebec. These are the most productive deposits of the world. Chromite also occurs in the peridotite. Auriferous quartz veins, mainly of the interbedded type, are found on domes and pitching anticlines of the Gold-bearing series of Nova Scotia. Zinc-lead deposits occur in the Devonian shales and limestones of Gaspé peninsula, zinc-lead-copper sulphides in the southern part of Cape Breton island in a series of lava flows, and copper deposits in southern Quebec.

Interior Plains.—The Interior Plains are underlain by a series of nearly horizontal sedimentary rocks of Palæozoic, Mesozoic and Tertiary age. The Palæozoic rocks, consisting mainly of limestone, dolomite and shale of Ordovician, Silurian and Devonian age, form a belt extending north through Manitoba and northwest through Saskatchewan and northeastern Alberta down the basin of Mackenzie river. East of the Mackenzie, rocks of Cambrian age are exposed in an area of limited extent. The Palæozoic formations rest upon the gently-sloping shelf of the Canadian Shield and pass westward with a dip of a few feet a mile beneath the shales and sandstones of Cretaceous age. The Cretaceous formations occupy nearly the whole of the plain from western Manitoba to the Rocky mountains and extend northward nearly to the Mackenzie river. There are also large parts of the Mackenzie basin, particularly of the lower half, in which the Devonian limestones are overlain by Cretaceous sediments. The Cretaceous sediments vary from shales predominantly of marine origin in the east to sandstones predominantly of continental origin in the west. Between the two are alternations of shales of marine origin with sandstones of brackish water or fresh water origin.

The Cretaceous beds are overlain in places by sediments of Tertiary age. The most extensive Tertiary formations are found in the hills of southern Saskatchewan and in a belt running north through central Alberta, where they lie in a broad syncline. Glacial till is widespread and clays were deposited in large lakes formed on the retreat of the ice-sheet. A large part of southern Manitoba formed the bed of glacial lake Agassiz.

The Interior Plains region is the great wheat-producing area of Canada. The mining of coal is one of the important industries; bituminous coal and lignite are produced in large quantities in Alberta and lignite in smaller quantities in Saskatchewan. The Cretaceous sediments are the reservoirs of great quantities of natural gas, and these and underlying formations are the source of the oil of the Turner Valley and Wainwright oil fields. Oil has also been struck in the Devonian rocks north of Norman on the Mackenzie river. Gypsum is obtained from the Palæozoic rocks of Manitoba.

Western Cordillera.—In the western Cordillera is a fairly complete succession of sediments of Precambrian, Palæozoic, Mesozoic and Tertiary age.

The mountains to the west of the Rocky Mountain trench in southern British Columbia are composed of a series of late Precambrian quartzites, slates and magnesian limestones of great thickness. The area underlain by these widens near the international boundary and extends east beyond the Rocky Mountain trench and west beyond the Kootenay Lake valley. On Kootenay lake there is a series of mica schists, quartzites and crystalline limestones penetrated by pegmatites and other plutonic rocks of Mesozoic age. This is the Shuswap series, which

may belong to the early Precambrian or be an altered phase of the late Precambrian. On the west shore of the lake the series grades upward into less altered rocks. These are overlain by sediments of Carboniferous age which extend northward to the main line of the Canadian Pacific railway. The Shuswap series extends from east of Revelstoke to Shuswap lake and northward to the headwaters of Fraser river. In places they are much altered and associated with intrusive rocks. Gneissic and schistose rocks, probably of the same age, are found on Finlay and Omineca rivers. Quartzites, mica schists and crystalline limestones with interbands and broad areas of schists of various kinds and intrusive granite gneiss are found over a wide stretch of the Yukon plateau. Slates, quartzites and conglomerates, also probably of Precambrian age, occur on the northern part of the Alaska-Yukon boundary, in the Ogilvie range and in the Kluane district.

The Rocky mountains consist of a series of great fault blocks in which an enormous thickness of Palæozoic and Mesozoic sediments is exposed. Many thrusts of great extent have resulted in an over-riding of the Mesozoic sediments by the Palæozoic, and the erosion of the softer strata of the former has produced longitudinal valleys between the harder Palæozoic blocks. The Palæozoic formations consist mainly of limestones with less amounts of sandstone and shale. A succession with few breaks from the Cambrian through the Ordovician, Silurian, Devonian and Carboniferous is found, and probably extends with certain deviations throughout the length of the Rocky mountains and Mackenzie mountains. Between the Cambrian and Precambrian beds there is apparently little angular unconformity, but the variation horizontally in the Precambrian strata on which the Cambrian formations rest and a similar variation in the ages of the over-lying Cambrian strata furnish evidence of a long period of erosion.

The Mesozoic strata consist of soft shales and sandstones some of which are coal-bearing. Strata of Triassic, Jurassic and Cretaceous age are represented.

On the interior plateau of British Columbia, limestones, quartzites and argillites of Caribonifcrous age and known as the Cache Creek group are of wide distribution. These are succeeded upward by argillites and limestones and a great mass of volcanic intrusives and effusives of Triassic age, and these are succeeded by sediments and volcanics of Jurassic age. The Triassic and Jurassic formations are widely distributed, are found on the islands to the west, and some at least extend into the Yukon.

Formations of Cretaceous age are found on Vancouver and Queen Charlotte islands and in a belt extending up the Fraser and along the eastern edge of the Coast range into the Skeena valley. They are mainly formations of continental origin and carry coal seams, but also include sediments of marine origin and volcanics.

Very early Tertiary times were characterized by widespread orogenic disturbances in the Cordillera. The Rocky mountains were formed and there was much folding and faulting in places in the interior, followed by intense erosion. Tertiary sediments, partly of continental deposition with seams of lignite and partly of marine deposition, occur at many points throughout the interior of the Cordillera and on Vancouver island. Lava flows capping some of these sediments cover broad stretches of the interior plateau.

In Pleistocene time nearly the whole of the Cordillera with the exception of a large area in Yukon was subjected to glaciation, and glaciation still persists in the mountainous regions. Volcanics of recent age are found in areas of limited extent.

An episode of great economic importance in the geological history of the West was the intrusion of the granitic rocks of the Coast Range batholith and of acid

rocks at different points in the interior, particularly in the southern part of British Columbia in Mesozoic times. Many of the more important mineral deposits of British Columbia, such as the copper deposits of Hidden Creek, Britannia, and Allenby mountain, the gold-silver deposits of Salmon River district and the silver-lead deposits of the Slocan, had their origin in solutions given off by the magmas of these acid intrusives.

The lead-zinc deposit of the Sullivan mine lies in sedimentary rocks of Precambrian age. The Cretaceous and Tertiary formations carry seams of coal and lignite of great importance. There are economic deposits of other minerals in great variety throughout the Cordillera, and British Columbia is one of the leading mineral-producing provinces of Canada. The gold of the once famous Klondike region was found in placers of an unglaciated area and the gold of the Cariboo district occurs mainly in Tertiary placers that were unaffected or little affected by glaciation.

Section 2.—Economic Geology of Canada, 1927[1].

The purpose of this paper is to call attention to the most important reports and articles treating of the economic geology of Canada and published during 1927. The particular articles here referred to, although recently published, do not necessarily contain the best and most complete information on the subjects treated; for further information it is advisable to consult the Dominion and Provincial Departments of Mines. The reference numbers appearing through the text indicate the publishers as listed at the end of this paper.

Antimony.—In the Slocan mining division, C. E. Cairnes[1] studied the antimony deposits of the Alps-Alturas group. He found an interesting assemblage of late igneous and sedimentary rocks more or less severely metamorphosed. The sedimentaries consist principally of slates and argillites with certain dense-textured cherty rocks. Earlier greenstones, basic in composition, are probably andesites. The later intrusive rocks are chiefly granite batholith types with offshoots of stocks, dykes and aplite stringers, which have penetrated the older rocks in all directions, completely metamorphosed them and probably are responsible for the ore deposits. The stibnite occurs in quartz veins in a shear zone. The geology appears excellent for mineralization on a large scale; little prospecting has been done.

An occurrence of stibnite on Hyres island at the west end of Oxford lake is described by J. F. Wright[1]. The stibnite occurs in massive form and in small flakes in a shear zone in quartz-sericite-ottrelite-schist, the stibnite-bearing part averaging about 3 feet in width and being exposed for 100 feet along the strike. Several tons of stibnite ore taken from a lens-shaped body of massive stibnite were estimated to carry over 50 p.c. antimony.

W. V. Smitheringale[5] presents a concise yet comprehensive outline of the geology of the world's antimony deposits, dealing in greater detail with Canadian occurrences. The only mines from which any appreciable quantity of antimony has been obtained in Canada are at West Gore, N.S., and Lake George, N.B.

Arsenic.—Owing to the heavy demand that was made two or three years ago for white arsenic, a complete survey of the Canadian possibilities was undertaken by M. E. Hurst[1]. In the report presenting the results of this survey descriptions of the more important occurrences of minerals from which arsenic is obtained

[1] Contributed by Wyatt Malcolm, M.A., F.R.S.C., and P. J. Moran, Geological Survey, Ottawa.

are given, and observations are made on the commercial possibilities. The cobalt and nickel minerals found in the Cobalt mining district of northern Ontario have for many years been the most important source of arsenic in Canada. Arsenopyrite from other areas has been the source of smaller quantities.

Coal.—W. E. Cockfield[1] reported upon coal horizons in the Atlin-Telegraph Creek area, G. Hanson[1] on the Zymoetz River area, and B. R. MacKay[1] on Hat creek, Kamloops district, British Columbia.

Coal has been reported from Sloko lake and Yeth creek. It is not definitely known whether the coal-bearing formation persists throughout the Atlin-Telegraph Creek area, but if so it is well worthy of prospecting.

In the Zymoetz River area, coal occurs in the Lower Cretaceous Skeena horizon and possibly in the Middle Jurassic Hazelton horizon. Six seams of coal are known to occur, three of which are over three feet in thickness. A thorough test of the coal has not been made; the volatile matter is low and moisture and ash content high.

Lignite seams at Hat creek were found to have an estimated thickness of 110 feet of clean coal. The lignite slacks upon exposure to air, leaving little lump; the moisture and ash content are high.

The so-called coal seams of the Moose River basin, Ontario, have been described by F. H. McLearn[1]. The material obtained from the banks of Mattagami river is a lignite and the seams exposed on Missinaibi and Opazatika rivers are interglacial peat beds. So far as they are known at present they are not thick enough, regular enough or extensive enough to be of economic importance.

The Minto coal fields of southern New Brunswick are described by W. S. Dyer[1]. The coal, which is of Carboniferous age and bituminous in character, occurs in seams 18 to 24 inches thick which lie at a very shallow depth and are mined in part by surface stripping.

Copper.—E. S. Moore[3], in a report on the geology of the east shore of lake Superior, includes a description of the interbedded conglomerates and amygdaloidal basic lava flows in which a certain amount of native copper has been found. The formations resemble those of northern Michigan, which have been the source of enormous quantities of copper. Attempts were made a great many years ago to work the Canadian deposits.

The important auriferous copper and zinc sulphides of western Quebec that are now being mined or that are in course of development are described in considerable detail by H. C. Cooke[1]. In writing on his investigations in 1926 the author describes intrusions of granodiorite that are probably sill-like in form, and shows that the relation of the sulphide bodies to the granodiorite intrusions suggest that the ores are basic segregations that separated in some way, perhaps by sinking during the early stages of cooling of the magma. He points out, however, that much yet remains to be done in order to determine definitely the genesis of the ore.

The sulphide deposits of Desmeloizes township, Quebec, are briefly described by W. F. James and J. B. Mawdsley[1], and copper deposits at Goshen and at Annidale Station, N.B., are described by M. E. Wilson[1].

Gold.—A number of reports have been published on areas in which gold discoveries have been made and areas which are underlain by geological formations of early Precambrian age in which mineral deposits of value might be expected to be found. The geological features are described in detail and notes are given

on the character of the mineral discoveries and on the extent to which development operations had been carried on. These include reports by T. L. Tanton[1] on the Steeprock Lake area, by J. E. Hawley[3] on Ogden, Bristol and Carscallen townships, by E. L. Bruce[3] on McArthur, Bartlett, Douglas and Geikie townships, by T. L. Gledhill[3] on the Grassy River area, Sudbury district, by F. L. Finley and Geo. B. Langford[3] on the Wasapika section of the West Shiningtree gold area, and by T. L. Gledhill[3] on the Michipicoten and Goudreau-Lochalsh gold areas of Algoma district.

As a result of further investigations by H. C. Cooke[1] in the Argonaut mine, Gauthier township, Ontario, where the geological formations consist of Keewatin lavas, basalts and trachytes intruded by dykes of quartz diorite and syenite porphyry, it has been shown that the quartz diorite is of two different ages, that the ores were deposited from ascending hot solutions mainly through the zone of rocks heated by the later quartz diorite dyke, and that the dyke, although it did not give rise to the ores, rendered it possible, by heating the adjacent rocks, for the hot solutions to rise to their present level before being cooled sufficiently to precipitate their contents.

A number of occurrences of gold in western Quebec are described by W. F. James and J. B. Mawdsley[1]. These include auriferous quartz veins in shear zones in the Keewatin lavas of Landrienne and Barraute townships, the gold deposits of Dubuisson township, which may have had their origin in the magma of an intrusive granodiorite mass, and those of Fournière and Cadillac townships, where the gold occurs in quartz veins and the adjacent country rock in shear zones in the Timiskaming sediments.

A report made by T. A. Rickard a number of years ago on gold mining in Nova Scotia has been published by the Nova Scotia Department of Mines. He points out that although the greater number of the Nova Scotia gold veins are of the interbedded type there is a striking difference between them and those of Bendigo, Australia, and that the methods of mining at Bendigo are not to be recommended for Nova Scotia. He suggests that gold mining in Nova Scotia must, in the future as in the past, depend mainly on the small enterprises of practical miners.

Auriferous veins of the Whitehorse district, southern Yukon, are described by W. E. Cockfield and A. H. Bell[1]. The veins consist chiefly of quartz with subordinate amounts of calcite and barite and with galena as the most characteristic metalliferous mineral. These occur in a general way in a belt paralleling the trend of the Coast range and are found in the Coast Range intrusives, in the intruded older volcanics and in schists probably of Precambrian age.

C. E. Cairnes[4] describes briefly the geology and mineral deposits of the Lillooet valley. The economic minerals are deposited in geological formations of Triassic and Jurassic age and had their origin in the Coast Range batholith.

The placers and vein gold deposits of Barkerville, Caribou district, are described in detail by W. A. Johnston and W. L. Uglow[1]. The most important placers are those that occur in ancient stream gravels resting on bedrock and buried in many places beneath glacial drift. The gold-bearing gravels on bedrock vary from a few inches to 10 or 15 feet in thickness and average 5 or 6 feet. The gold was derived from a belt of auriferous veins which, together with the enclosing country rock, were through the long process of time decomposed and eroded, the gold being deposited in the gravels by process of natural concentration. W. A. Johnston[1] reports also on the gold placers of the Dease Lake area. Most of the gold has been recovered from gravels resting on bedrock in the old high-level channels of Dease

and Thibert creeks. With regard to future possibilities, it is stated that the shallow ground in most of the creek valleys has been tested more or less but that deep ground has been tested in only a few places. The gold placers of the Dogtooth range are briefly described by C. S. Evans[1].

Auriferous-arsenopyrite mineral veins are described by V. Dolmage[1] as occurring in black argillites, dark brown argillites, sandstones and fine cherty conglomerates in the Tatla-Bella Coola area. The showings are large but gold values small.

Iron.—A monograph on the iron ores of British Columbia and the Yukon by G. A. Young and W. L. Uglow[1] contains general notes on the origin, form and distribution of iron ores, detailed descriptions of the most important known occurrences and estimates of the ore reserves. The report is very comprehensive and complete. The titaniferous iron deposits in the vicinity of St. Urbain, Quebec, have been described in detail by J. B. Mawdsley[1]. It is claimed that the ilmenite deposits are later than the anorthosite with which they are associated, but are genetically related to it, that they are magmatic in origin, and that they were intruded as a liquid magma of essentially their present composition. The banded iron formation of the Batchewana area, Ontario, which has from time to time attracted some attention, is described by E. S. Moore[3].

Lead.—The Wright silver-lead mine, a mine of much historic interest situated on the east shore of lake Timiskaming, is described by H. C. Cooke[1]. The ore body is a vertical pipe and consists of galena, zincblende and calcite cementing a breccia made up of fragments of Cobalt conglomerate. The country rock is cobalt conglomerate. The ore has a rather definite vertical variation. At the surface and on the two upper levels it is largely argentiferous galena with very little sphalerite. The proportion of sphalerite increases downward to the 179-foot level. Below the 179-foot level both sulphides decrease in quantity to the lowest level at 330 feet. The writer is of the opinion that the galena and zincblende were deposited from descending meteoric waters.

The lead-zinc deposit of Calumet island, Pontiac county, Quebec, has been made the subject of investigation by R. W. Goranson[1]. The ore replaces amphibolite along a shear zone. Locally the original mineral and texture of the amphibolite are preserved and the rock is known to be an altered hypersthene gabbro or diorite.

An unusual mode of occurrence of galena and sphalerite is described by E. S. Moore[3]. These minerals are found associated with pyrite, pyrrhotite and chalcopyrite in the iron formation in Genoa township, Ontario. The author believes that the sulphides had their origin in granite quartz porphyry magma.

Notes on the lead-zinc property at Leadvale, Colchester county, on the lead-zinc deposit of Gay River, Halifax county, and on a lead deposit near Glenelg post office, Guysborough county, Nova Scotia, are presented by M. E. Wilson[1].

Limestone.—A body of limestone of rather high calcium content occurring in L'Etang peninsula, Charlotte county, New Brunswick, is described by W. L. Uglow[1]. An analysis of a sample taken by F. H. McLearn[1] from a 25-foot cliff of limestone on the left bank of Mattagami river at Grand rapids shows that this is a limestone of rather high calcium content and that the content of insoluble matter and of ferric oxide and alumina is low. Valuable information on the distribution of the limestones of Ontario and Quebec, the locations of the quarries, the quarrying possibilities and chemical analyses of the rock, is to be found in a report by M. F. Goudge[2] on the limestones of Quebec and Ontario.

Mineral Springs.—R. T. Elworthy[2] describes the results of investigations made on the Radium hot springs in Kootenay park, the Fairmont hot springs in the Columbia valley, the Halcyon hot springs on the Upper Arrow lake, and Harrison hot springs on Harrison lake, British Columbia. Determinations were made of the temperature, the mineral content, and the radioactivity. Some of the hot springs of British Columbia are known to have therapeutic value and to compare favourably with European and American waters of similar character. They are admirably situated from the tourist point of view. The Radium hot springs and Fairmont springs compare favourably in radioactivity with the most radioactive waters known in the United States.

According to an investigation by P. S. Warren[1] into the variation in the rate of flow of the Upper Hot spring at Banff it is pointed out that "taking for granted the meteoric origin of the spring the intermittency of this spring may be easily explained. The water at the source will accumulate only during the summer months, as the supply is derived from rain and the melting snow and ice. During the winter months the supply is not replenished and the level of the water in the reservoir will be lowered in response to the continual drainage of water to the springs. . . . . The Upper Hot Spring having the highest altitude would be most easily affected by the lowering of the water supply . . . . . According to our explanation it was the exceptionally light precipitation during the year 1922 which was responsible for the failure of the spring during the following winter."

Hot springs are reported by W. A. Johnston[1] in the Liard valley near the mouth of Smith river and at intervals along the Liard to the head of the Grand canyon; by F. A. Kerr[1], around the base of volcanic cones south of Telegraph creek; and by J. R. Marshall[1], at the southeast corner of Lakelse lake. The springs at Lakelse lake are reported to contain sufficient lithium salts and sulphur to be of medicinal value.

Petroleum.—On account of the intense interest that is being taken in the oil possibilities of Alberta and Saskatchewan and particularly in the oil possibilities of the foothills of Alberta, the Geological Survey is making a careful study of the sedimentary formations of these two provinces and of the structural conditions that influence the accumulation of petroleum and natural gas. G. S. Hume[1] reports on the geology and structural features of the Turner Valley oil field. He describes the petroleum as occurring in the Blairmore and Kootenay formations of Cretaceous age and in a dolomitic limestone of pre-Fernie age. The intense folding and faulting within the foothills makes the determination of the structure exceedingly difficult. W. S. Dyer[1] and P. S. Warren[1] present descriptions of the geology of parts of southern Saskatchewan and remark on the oil possibilities. From rock exposures and from the logs of certain wells, G. S. Hume has succeeded in determining an anticlinal structure at the Alberta-Saskatchewan boundary near Battle river.

Attention has, from time to time, been directed to the oil possibilities of the Lake Ainslie area, Cape Breton island. The subject is discussed by W. A. Bell[1] in his description of the geology of this area.

In an admirable paper published in the bulletin of the American Association of Petroleum Geologists, F. H. McLearn and G. S. Hume describe the geology of the province of Alberta from the point of view of the petroleum geologist, and give correlated sections measured in different parts of the province.

G. S. Hume[5] after discussing the carbon ratios of coal as an indication of oil possibilities, and after giving details of analyses of Alberta coals, concludes that

the results seem to show that predictions regarding the occurrence of oil and gas can be safely made where the carbon ratios are of the proper magnitude, but for predicting the character of the oil the carbon ratio theory is not so reliable for Cretaceous oil as apparently it is for Pennsylvanian oil.

Of interest also to petroleum geologists is a report by Ralph L. Rutherford on the geology along the Bow river between Cochrane and Kananaskis, Alberta. This was published by the Scientific and Industrial Research Council of Alberta.

Pyrite.—A body of cupriferous pyrite of considerable size is found thirty miles up Ecstall river on the west coast of British Columbia. It occurs in a roof pendant of schist in the Coast Range batholith. It carries a small amount of copper, zinc and lead, but the concentration of none of these is sufficient to render the body of economic importance under present day conditions. It is described by H. J. C. MacDonald in the Engineering and Mining Journal. A summary by W. H. Collins and Wyatt Malcolm of the available information concerning the known deposits of pyrite in Canada has been published in the monograph on the pyrite resources of the world issued in connection with the 14th International Geological Congress held in Spain in 1926.

Silver.—Reports by A. G. Burrows[3] and Geo. B. Langford[3] on the Gowganda silver area and the Shiningtree area, Ontario, respectively, have been published. Silver-bearing veins have been discovered in the Shiningtree area, in the Keweenawan diabase near its contact with overlying formations. In the Gowganda area nearly all the silver deposits are found in the diabase, but a few veins occur in the overlying greenstone and conglomerate near the igneous contact.

A study by W. B. Jewell[6] of certain mineral deposits of the Hyder district, Alaska, is of interest because of their resemblance to those of the Salmon River district, British Columbia. They are chiefly fissure veins. Deposits also occur in roof rocks as disseminations and as partial replacements of brecciated country rock in shear zones. Hypogene minerals make up the vast bulk of the ore and consist of pyrite, galena, sphalerite, chalcopyrite, tetrahedrite, pyrrhotite, arsenopyrite, freibergite, scheelite, gold, chalmersite and molybdenite. Supergene ore minerals are sparse or absent.

In a paper presented to the Royal Society of Canada, J. M. Bell and H. B. O'Heir stress the importance of faulting and fracturing in determining the location of mineral deposits in the mining camps of Cobalt, South Lorrain and Porcupine.

Silver-lead-zinc.—The eastern limit of the Coast Range batholith and its outliers was examined in selected areas from southern Yukon as far south as Tacla lake, British Columbia. The batholith and its outliers intrude Palæozoic and Mesozoic sediments and volcanics. Post-batholith phases in the form of basic and acidic dykes and sills are in certain areas found invading the whole. Shatter zones and fissures formed during the intrusion and later readjustment were filled by mineral-bearing solutions emanating from the cooling magma. The different periods of shattering and fracture filling lend a diversity and complexity to the age and character of deposit types. At the contact of the batholith and limestone metasomatic replacement deposits occur; replacement deposits are found in basic dykes and in altered wall rock near the dykes. Continuance of readjustment faulted some of the mineral deposits and in places metamorphosed them. In some portions of the zone, late volcanic flows completely mask the earlier geology. Prospecting up to date has been confined principally to the batholith; it appears that

mineralization worthy of examination lies in the sediments east of the contact. In the majority of these areas, transportation is difficult; in places at the present time it is impossible, so far as movement of ore is concerned.

The marginal limit of the Coast Range batholith was examined at Aishihik Lake district, Yukon territory, Leonard Mountain area, in vicinity of Fourth of July creek, tributary to Atlin lake, British Columbia, and between Atlin and Telegraph creek, British Columbia, by W. E. Cockfield[1]; Stikine River area, thirty miles south of Telegraph creek, by F. W. Kerr[1]; Lakelse lake, Zymoetz River area and Eutsuk Lake area, by J. R. Marshall[1]; Zymoetz River area, by George Hanson[1]; Hudson Bay mountain, Zymoetz River area, by R. H. B. Jones[1]; and in the Tatla-Bella Coola area, by V. Dolmage[1].

At Leonard mountain the minerals occur mainly in shatter zones and replacements in dykes. They consist of galena, zincblende, arsenopyrite, pyrite and chalcopyrite in a quartz, ankerite and calcite gangue, and show prevailingly low gold and silver values; certain exceptions occur in which these values are high.

The investigation of the Atlin to Telegraph Creek area was found to be disappointing from the standpoint of mineralization. The batholith was found intruding the sediments in the north of the area, but in the south the whole was completely masked by later volcanic flows. Some portions of the area remain unstudied and in view of promising adjacent areas it is possible that some portions may be similarly mineralized.

Along the Stikine below Telegraph creek, the batholith and sediments are invaded by sheared, faulted and sinuous dykes, and altered considerably by dynamic metamorphism; the dykes though sheared are not altered in this way. Later volcanic flows cover part of the area. All the mineral deposits occur at the contact of the granodiorite and sediments or in the sediments or granodiorite near the contact. The mineralization is patchy. Deposits consist of: (1) Magnetite and pyrrhotite with small amounts of zinc, copper and lead in solid mineralized masses (lenses) at the contact, in gangue of quartz, garnet, epidote and other silicates; (2) Argentiferous galena and sphalerite with a gangue of quartz, epidote, garnet and other silicates in the sediments at or near the contact; (3) Argentiferous galena, sphalerite and chalcopyrite in irregular masses in altered limestones.

In the Lakelse Lake area the batholith and intruded sediments and volcanics are invaded by numerous dykes of widely varying dimensions and compositions,—lamprophyres, diorites, porphyrys and aplite. The earlier volcanics and sediments are profoundly fractured and folded, and in a condition to be readily susceptible to replacement. Fractures in the intrusives, volcanics and sediments carry replacement deposits of galena, gray copper, pyrite, chalcopyrite, molybdenite and scheelite.

In the Zymoetz River area the batholith and intruded sediments were found invaded by lamprophyric sills and dykes. The mineral deposits graduate from the high temperature scheelite, molybdenite and gold occurrences in the batholith, through copper deposits at the contact, to silver-lead-zinc deposits in the sediments as far as 15 miles from the contact.

In the Hudson Bay Mountain area the mineral deposits are replacement fissure veins, that is, veins in which a variable amount of wall rock has been altered and replaced by minerals, in andesite, rhyolite, limestone, granodiorite stocks and conglomerate; metasomatic replacement deposits were also observed. The mineral deposits are classified as follows: (1) Pyrrhotite-sphalerite deposits with some pyrite and lesser amounts of arsenopyrite and chalcopyrite; (2) Sphalerite-arseno-

pyrite deposits accompanied by pyrite and chalcopyrite; (3) Galena-sphalerite deposits accompanied by chalcopyrite, tetrahedrite, pyrite, and in some cases, arsenopyrite; (4) Chalcopyrite, bornite deposits; (5) Magnetite-chalcopyrite deposits. Gold values appear associated with arsenopyrite; silver values with lead.

In Eutsuk Lake area, silver-lead deposits were found in sedimentary tuffs associated with pyrite, chalcopyrite and bornite.

At Galena hill, Yukon, Precambrian sediments, according to C. H. Stockwell[1] were intruded along the bedding planes by sheets of magma (probably andesite) and the whole folded to its present attitude, when sediments were metamorphosed into quartzites and schists, and the andesites into greenstones. Rhyolite was intruded as a sill along parts of the contact between the quartzite and schist. Areas of granite occur northeast, northwest and southeast, at distances of from 10 to 25 miles. It is probable that the rhyolite represents a later phase of the intrusion and that the batholith underlies the area. The mineral deposits are fissure veins striking northeasterly and dipping to the southeast, in which heavier mineralization occurs in shoots. The following types are found: (1) Siderite-galena-freibergite with high silver content in manganiferous gangue in quartzite; (2) Galena-sphalerite with subordinate amounts of pyrite, chalcopyrite and malachite, in gangue of quartz and ankerite; (3) Quartz-arsenopyrite, with subordinate ankerite, calcite and white mica gangue, in quartzite and schist; (4) Quartz-stibnite deposits carrying low silver values and occurring in schist and greenstone.

J. F. Walker[1] studied silver-lead-zinc deposits in the Purcell range, west of Brisco, C. E. Cairnes[1] in the Slocan area, and C. S. Evans[1] in the Dogtooth range, in the Kootenay district, British Columbia. In the Purcell range, west of Bisco, lead silver fissure veins occur principally in limestones and slates of Precambrian age. In the Slocan area highly folded sedimentary rocks are intruded by a granodiorite batholith and large porphyry dykes. Silver-lead-zinc ores in fissure veins and replacement deposits are found throughout the district in the sedimentaries and intrusives, with gangue minerals, calcite, siderite and quartz.

Miscellaneous.—A comprehensive summing up by M. E. Wilson and others[1] of the available information regarding the talc deposits of Canada contains observations on the mode of occurrence and the origin of the talc, and notes on the commercial possibilities and uses.

K. A. Clark and S. M. Blair describe in a report published by the Scientific and Industrial Research Council of Alberta measured sections of exposures of the bituminous sands of northern Alberta, and give the results of laboratory analyses—the water content, the bitumen content, the character of the bitumen and the screen analyses of the mineral matter.

Deposits in Canada of minerals suitable for abrasive purposes, such as corundum, garnet, quartz, sandstone, etc., are described by V. L. Eardley-Wilmot[2]. Notes on the uses and consumption of these materials and on the status of the industries are given. Considerable attention has been given recently to certain deposits of lithium-bearing minerals found in eastern Manitoba. One of these deposits is described briefly by L. H. Cole and V. L. Eardley-Wilmot[2]. R. T. Elworthy[2] discusses the question of the possible sources of helium in Canada and presents the results of analyses made of natural gases produced in Alberta, Ontario and New Brunswick. The results of a survey by A. Anrep[1] of a number of peat bogs in the provinces of New Brunswick and Quebec have been published. The amount of material in the bogs is estimated, and suggestions are given as to the

ommercial possibilities. L. J. Weeks[1] presents brief descriptions of known minerals ccurring on Baffin island.

A series of valuable papers on the larger mineral deposits and on the mining ıdustry of Canada was published for presentation to the Empire Mining and Metallurgical Congress which met in Canada in 1927[5]. Among the most important f these papers are "Mining coal under the sea in Nova Scotia", by Francis W. Gray, "The development of gold mining in Canada", by G. E. Cole, "The silver ining industry in Canada", by Arthur A. Cole, "Asbestos—mining and milling", y Jas. G. Ross, "Lead and zinc in Canada", by T. W. Bingay and F. J. Alcock, Canadian copper and its production", by C. P. Browning. For use on the excur- ions of the Congress the Dominion Department of Mines published a handbook ntitled "Canada, geology, mines and metallurgical industries", by Wyatt Malcolm nd A. H. A. Robinson. It contains descriptions of many of the most important re bodies of Canada and of the mining methods and metallurgical treatment of res.

SOURCES OF REPORTS AND ARTICLES REFERRED TO IN THE TEXT.

(1) Geological Survey, Ottawa; (2) Mines Branch, Department of Mines, Ottawa; (3) Department f Mines, Toronto; (4) Canadian Mining Journal, Gardenvale, Quebec; (5) Canadian Institute of Mining nd Metallurgy, Drummond Building, Montreal; (6) Economic Geology, New Haven, Connecticut, U.S.

PART III.—SEISMOLOGY IN CANADA.

An article on Seismology in Canada, by Ernest A. Hodgson, M.A., appeared n page 30 of the Canada Year Book, 1925.

PART IV.—THE FLORA OF CANADA.

Under the above heading, the Canada Year Book, 1922-23, contained an article repared by the late J. M. Macoun, C.M.G., F.L.S., and M. O. Malte, Ph.D., nd revised by the latter. See p. 25 of the 1922-23 edition or p. 73 of the 1921 dition.

PART V.—FAUNAS OF CANADA.

The Canada Year Book, 1922-23, contained an article under the above heading y P. A. Taverner of the Department of Mines, Ottawa. See p. 32 of the 1922-23 dition or p. 82 of the 1921 edition.

PART VI.—THE NATURAL RESOURCES OF CANADA.

The economic life of new countries must at first depend entirely, and later, ıainly upon their natural resources. Older countries, after exhausting their most asily obtained resources, turn for a livelihood to manufacturing and similar pur- uits, conserving their own resources and utilizing those of less developed areas. Canada is distinctly a new country, the resources of which are but now commencing o be appreciated; in recent years numerous surveys and investigations as to their xtent and value have been made. A short summary of important details regarding ıem follows. Fuller information will be found in the introductions to later chap- ers — Agriculture, Furs, Fisheries, Forestry, Minerals, Water-Powers—of this olume.

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Agricultural Lands.—Of the total land area of the nine provinces (1,329,539,200 acres), it is estimated that approximately 358,162,190 acres are available for use in agricultural production. This figure is of course an estimate and is taken to include lands now occupied by agriculturists, including grazing lands, and also lands possible of devotion to similar purposes. The area at present under cultivation is but a fraction of this total, the extent under field crops in 1927 being 56,172,31[illegible] acres, while the total area under pasture in the same year was 9,390,294 acres. Statistics of farm lands at the census of 1921 place the area then occupied at 140,887,903 acres; the area, therefore, of what may be considered as agricultural land still available for occupation was 217,174,287 acres. Details are given by provinces in Table 6.

6.—Area of Occupied and Estimated Available Farm Lands in the Nine Provinces of Canada, 1921.

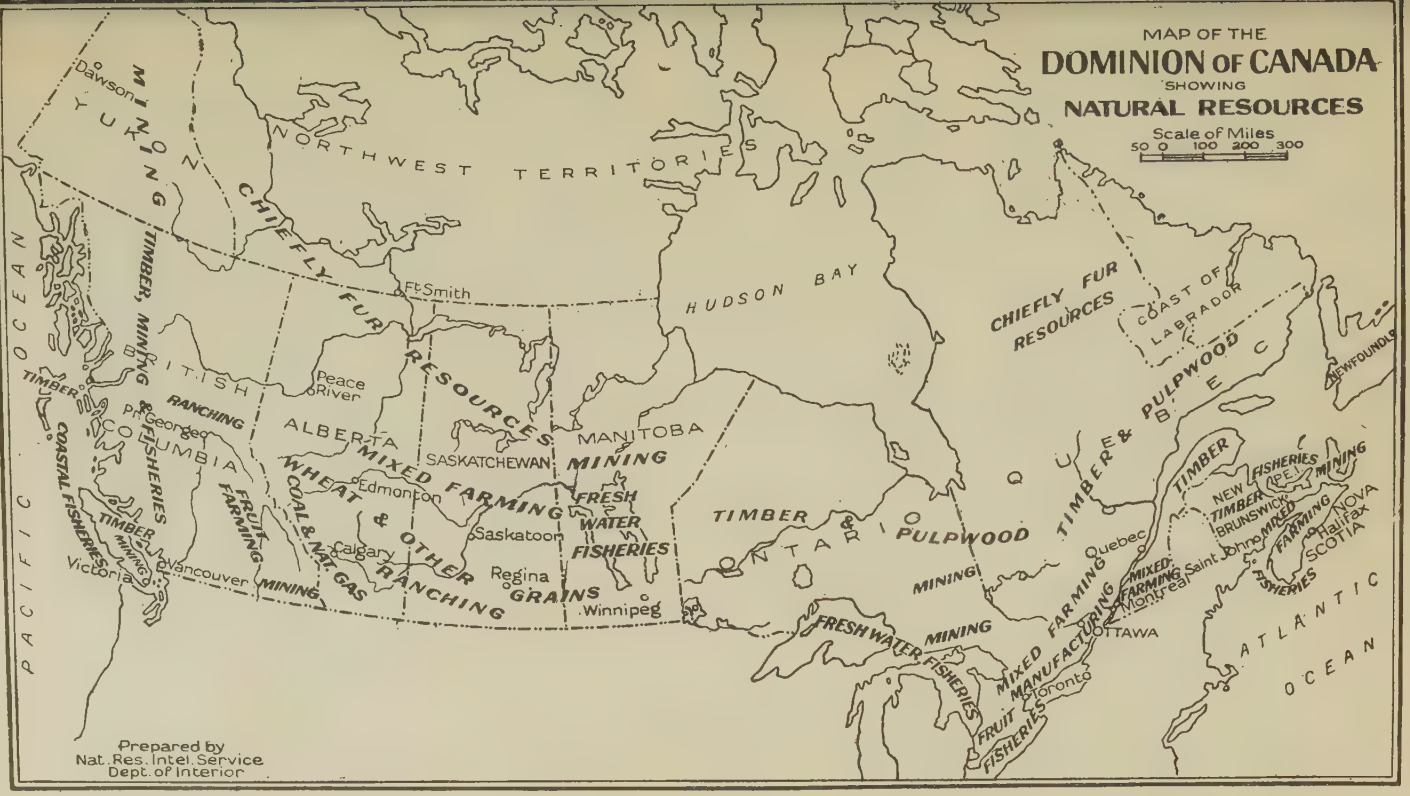
Provinces.	Area Occupied.	Area Available.	Total Agricultural Land.	Total Land Area, 1928.
	acres.	acres.	acres.	acres.
Prince Edward Island	1,216,483	41,707	1,258,190	1,397,76[illegible]
Nova Scotia	4,723,550	3,368,450	8,092,000	13,483,5[illegible]
New Brunswick	4,269,560	6,448,440	10,718,000	17,863,6[illegible]
Quebec	17,257,012	26,487,988	43,745,000	373,692,80[illegible]
Ontario	22,628,901	33,821,099	56,450,000	234,163,20[illegible]
Manitoba	14,615,844	10,084,156	24,700,000	148,432,6[illegible]
Saskatchewan	44,022,907	49,435,093	93,458,000	153,728,0[illegible]
Alberta	29,293,053	67,829,947	97,123,000	160,592,00[illegible]
British Columbia	2,860,593	19,757,407	22,618,000	226,186,2[illegible]
Total	**140,887,903**	**217,174,287**	**358,162,190**	**1,329,539,2[illegible]**

[1] As per Labrador Boundary Award of Mar. 1, 1927. [2] Revised.

Thus, in all the provinces but Prince Edward Island, large areas are still available for settlement, and while the nature of the soil and of the climate may in some cases restrict the variety of crops, in general the grain, root and fodder crops can profitably grown in all the provinces, while stock raising is carried on successfully both in the more densely settled areas and on their frontiers.

The Maritime Provinces are noted for their fruit and vegetable crops, perhaps particularly for the oat and potato crops of Prince Edward Island and New Brunswick and the apples of the Annapolis Valley in Nova Scotia. Quebec and Ontario are pre-eminently mixed farming communities, various districts specializing in dairying, tobacco, sheep, etc., while the Niagara peninsula in Ontario has long been famous for its fruit crops of both large and small varieties. In Manitoba, Saskatchewan and Alberta the production of grains is still of primary importance but is giving way to more diversified types of agriculture, while the stock raising industry, once so typical of the prairies, is regaining much of its former importance. In British Columbia the fertile valleys are devoted principally to apple and other fruit crops and numerous districts along the coast and on Vancouver island are given over to general farming and market gardening.

Of the larger areas of land still available for settlement, the clay belt of northern Ontario and Quebec, in which splendid crops are grown, is to a large extent undeveloped, and even larger areas in northern Saskatchewan and Alberta await cultivation.



Map Showing Natural Resources of Canada.

Furs.—Canada is one of the world's greatest fur producers. As early as 1676 Canadian furs sold in England were valued at £19,500. Since that time great areas of northern territory have been explored by hunter and trapper. The larger companies engaged in the business, notably the Hudson's Bay Co. and Révillon Freres, maintain extensive systems of trading posts where trappers call at intervals to dispose of their pelts and procure supplies. The large uninhabited areas of northern Quebec, Ontario, Manitoba and the Northwest Territories furnish subsistence for many of the most highly prized fur-bearing animals, among the most important of which are the beaver, fisher, various varieties of foxes, marten and others. These animals are usually caught in traps during the winter months, when the country is more accessible than during the summer and the pelts are in the best condition. The successful breeding of the fox on fur farms came with the period of rising prices after 1890, and has since developed into an important industry. Prince Edward Island has always been the centre of the industry, but farms are now found in all provinces of the Dominion. On Dec. 31, 1926, 2,523 fox farms were in operation with a total of 54,303 foxes, principally of the "silver" variety.

Although the fox has proved the most suited to domestication, other kinds of fur-bearing wild animals are being raised in captivity—mink, raccoon, skunk, lynx, coyote, rabbit, marten and fisher. Karakul sheep, from which are obtained the furs known as "Persian lamb", "astrachan" and "broadtail", are also being raised successfully in Canada. In 1926 the number of farms engaged in the raising of fur-bearing animals other than foxes was 186. Mink farms are the most numerous of the miscellaneous class, raccoon farms coming next. A few of the fox farms also raise miscellaneous fur-bearing animals in addition to the foxes.

During the year 1926-27 the value of pelts taken in Canada amounted to $18,864,126. Pelts sold from fur farms in the calendar year 1926 were valued at $1,224,941 and animals sold at $2,294,629.

Forests.—Among the most valuable of all Canada's natural resources exploited up to the present time have been those of her forests. From the days when masts and spars were exported for use in the French navy and early French settlers established shipbuilding yards along the St. Lawrence up to the present, when our forests supply billions of board feet of lumber and timber and millions of tons of pulp, paper and other forest products yearly, these resources have been of immense value not only to Canada but to the Empire.

Canada's forest area may be roughly divided into three main parts:—(1) the great coniferous forest of the Pacific Slope, (2) the northern forest, partly of hard woods, which stretches from the east slopes of the Rockies, north of the prairies and of the Great Lakes to Labrador, and (3) the mixed softwoods and hardwoods forests extending from lake Superior through southern Ontario and Quebec to the Maritime Provinces. Canada's forest area has been estimated at 1,151,454 square miles, some of which is agricultural land. About 311,234 square miles are covered with accessible timber of commercial size. With regard to quantity of timber it has been estimated at 425,000,000,000 feet board measure for saw timber and 1,122,000,000 cords of pulpwood, etc., the stands in Eastern Canada making up over 40 p.c. of the total, which amounted to over 224,000,000,000 cubic feet. These figures place Canada as the second most important country in the world with regard to total forest area, Asiatic Russia being first and the United States third in this respect. During recent years the annual cuts have generally exceeded the new growth and enormous losses have been caused by fire and other destructive agencies

In spite of the vast extent of the uncut and unburned forests it cannot be said that the measures so far taken by legislation and the application of scientific forestry to preserve them and encourage their regeneration have been sufficient to assure us an adequate supply of timber for the future.

A classification of Canada's forest area is given in Table 7. The total of forest land is divided into the areas at present carrying timber of merchantable value or valuable young growth, and other areas unsuited for present exploitation. It may be pointed out, however, that many of these latter will develop into productive areas as the demand increases and transportation facilities are extended. The totals of forest land given in this table refer to areas which are on the whole better suited for forest production than for any other purpose, although they include about 82,000 square miles of potential agricultural land at present covered with forest.

7.—Area of Productive and Unproductive Forest Land in Canada, 1927.

Provinces.	Forest Land.				Total land area.
	Accessible.		Unprofitable or inaccessible.	Total forest area.	
	Merchantable.	Young growth.			
	square miles.	square miles.	square miles.	square miles.	square miles.
Prince Edward Island	484	240	–	724	2,184
Nova Scotia	6,000	4,296	4,924	15,220	21,068
New Brunswick	15,750	9,110	–	24,860	27,911
Quebec	150,000	250,000	100,000	500,000	583,895[1]
Ontario	70,000	100,000	70,000	240,000	365,880
Manitoba	5,000	60,000	10,000	75,000	231,926
Saskatchewan	10,000	15,000	25,000	50,000	240,200
Alberta	30,000	40,000	16,650	86,650	250,925
British Columbia	23,000	75,000	51,000	149,000	353,416
Territories	1,000	1,000	8,000	10,000	1,464,644
Total	**311,234**	**554,646**	**285,574**	**1,151,454**	**3,542,049[1]**

[1] As per Labrador Boundary Award of March 1, 1927.

Forest products have always formed a large part of the raw material used in all kinds of industrial activity and for many years formed the greater part of Canada's export trade. Even at the present time products of forest origin form a quarter of our total exports, being exceeded only by the products of the farm.

Because of our climate, coniferous trees form over 80 p.c. of our forest resources and over 95 p.c. of our forest products as at present exploited. Because of their universal use in industry, the softwoods are in greatest demand, not only in Canada but in the markets of the world. Canada enjoys the reputation of holding the Empire's reserve of softwood timber, being rivalled in her coniferous forests only by Asiatic Russia and the United States. The Canadian species of both hardwoods and softwoods yield lumber and timber of dimensions and quality that are equal or superior to those produced by forests elsewhere.

Statistics of primary forest production in 1926 place its total value at $204,436,328 with a corresponding equivalent in standing timber of 2,838,105,611 cubic feet. The most important items are logs for sawing, valued at $70,982,675, and pulpwood for use and export, valued at $68,100,303. The total value of sawmill products in the same year was $135,182,592 and of pulp and paper mill products $215,370,274.

Fisheries.—The first of Canada's resources to be exploited by Europeans was the fishing banks of the Atlantic coast. It is believed that for many years before the actual discovery and settlement of North America the cod-banks south of Newfoundland and east of Nova Scotia had attracted French fishermen by their abundant catches. These fishing grounds alone extend along a coast line of more than 5,000 miles, comprising an area of not less than 200,000 square miles, and are in the course of the cold Arctic current, a fact which tends greatly to improve the quality of the fish. The most important fishes of the out-shore fisheries are the cod, halibut, haddock, herring and mackerel, while the inshore and inland fisheries number the lobster, oyster, salmon, gaspereau, smelt, trout and maskinonge among their catches. Other fishing grounds include the inshore expanses of the St. Lawrence river, the Great Lakes, where whitefish and herring form perhaps the most valued catches, and innumerable other inland water areas abounding with trout, pike, bass and other game fish, Hudson bay, with a shore line of 6,000 miles, and the Pacific coast. The fisheries of British Columbia, with its coast line of 7,000 miles, have in recent years shown a rapid development, and the products of the estuarian salmon fisheries of the Fraser, Skeena and other rivers now make up two-fifths of the fish products of the Dominion, while in addition large catches of halibut, herring and whales are made off the western coast. The total value of the fisheries in the calendar year 1927 was $49,460,600.

Minerals.—The numerous and varied mineral deposits of the Dominion form another of her most important resources. Mining is an old industry, coal having been produced in Nova Scotia and iron ore in Quebec early in the eighteenth century. The main development in the industry has taken place, however, in the twentieth century, during which there has been a great increase in the per capita consumption of minerals and mineral products.

There is a great variety of minerals, metallic and non-metallic. The value of the coal raised greatly exceeds that of any other mineral, reaching $61,867,463 in 1927. Coal will continue for an indefinite period to hold a commanding position in the industry, for Canada's reserves of this fuel are known to be very great. The other leading non-metallic minerals are asbestos, natural gas, gypsum, petroleum and salt. Others that are produced to the annual value of between $100,000 and $400,000 each are feldspar, graphite, grindstones, magnesite, mica, pyrites, quartz, talc and soapstone. In quantity of asbestos produced Canada takes the lead, nearly all of the production being from Quebec. Natural gas is produced in Ontario and Alberta and to a less extent in New Brunswick. The decline in the production of petroleum in Ontario has been offset by discoveries in Alberta.

The value of the metallic minerals is much greater than that of the non-metallic minerals. Those amounting to more than $1,000,000 per annum are:—gold, lead, nickel, copper, silver, zinc, cobalt and the platinum group of metals. The value of the gold amounted in 1927 to $38,300,464 and greatly exceeded that of any other metal, Canada having risen since the development of the Porcupine and Kirkland Lake mines to third place among gold-producing countries. Lead and zinc mining has in recent years made a rapid growth. Ontario meets about 90 p.c. of the world's requirements in nickel, and has reserves to last for centuries. Platinum and palladium are recovered in the process of refining the copper-nickel ores. British Columbia and Ontario are the main copper-producing provinces; important copper sulphide deposits are being developed in western Quebec, and in Manitoba a large

body of copper-zinc sulphides is being developed. The total mineral production for 1927 amounted to $247,356,695, while the 1928 production is provisionally estimated at $271,000,000.

Water-Powers.—Canada's water area of 142,674 square miles, distributed as it is throughout all parts of the country, provides a large amount of potential electric energy. It is estimated that 20,197,000 h.p. are available at a minimum yearly flow, 33,113,200 at ordinary six-months flow and that a turbine installation of 43,000,000 h.p. is possible. The present turbine installation of 5,349,000 h.p. represents only about 12½ p.c. of the recorded water-power resources. Perhaps the greatest use to which these resources have yet been put has been in the pulp and paper industry, and to a lesser degree in the mining, the electro-chemical, the electro-metallurgical and the flour-milling industries. The water power utilized in the pulp and paper industry alone amounted on December 31, 1928, to 1,362,500 h.p. Over 94 p.c. of the power available is in Quebec, Ontario, Manitoba and British Columbia; Quebec, with 8,459,000 h.p. available at ordinary minimum flow, has the largest resources in the Dominion.

Game and Scenery.—Canada's resources as a country for the sportsman and tourist are both unique and varied. With the increasing growth of tourist travel and its demands, great areas of uninhabited land have become accessible, and hitherto almost unknown parts may now be reached and traversed with ease. The valleys of Nova Scotia and New Brunswick, the broken lake country of northern Ontario and Quebec, as well as the mountain districts of British Columbia, offer to the tourist and the fisherman new types of scenic effects and innumerable game preserves, and have won for the Dominion a reputation as a paradise for sportsmen and campers. And not only is this possible for those who travel by land; the series of lakes and rivers which form a network over the eastern part of the country particularly, has made water travel in smaller craft both feasible and attractive. Further, facilities for winter sports, the unusual attractions of winter scenery and the bracing though rigorous winter climate, have done much to add to the reputations of resorts formerly noted for their advantages in the summer season.

The Dominion Government maintains, as the medium through which some of the most outstanding natural beauties of the country may be preserved and popularized, the National Parks Branch of the Department of the Interior, administering the eleven parks set aside for this purpose. Under the supervision of this same body are numerous historic sites which have been preserved throughout the country. Several of the provinces also maintain parks for similar purposes.

In these parks, the hunting of game is forbidden, and the wild life resources preserved. Elsewhere, however, there is available for the hunter and angler, at proper seasons, a wealth of game species; the deer and moose of Eastern Canada, the bear and mountain sheep of the Rockies, game animals, birds and fishes in unusual variety, have given the Dominion exceptional advantages for this means of recreation.

A list of the national parks and reserves is appended as Table 8. There are also numerous provincial parks, of which the Algonquin park (2,741 square miles) in Ontario and the Laurentides park (3,565 square miles) in Quebec are the most important.

8.—Canadian National Parks and Reserves.

Parks.	Location.	Date of Establishment.	Area.
			sq. miles.
Rocky Mountains Park	Alberta, east slope of Rockies	1885	2,751
Yoho Park	British Columbia, west slope of Rockies	1886	47[illegible]
Glacier Park	British Columbia, summit of Selkirks	1886	46[illegible]
Revelstoke Park	British Columbia	1914	10[illegible]
Kootenay Park	British Columbia	1920	58[illegible]
Jasper Park	Northern Alberta	1907	5,380
Waterton Lakes Park	Southern Alberta, adjoining U.S. Glacier Park	1895	22[illegible]
St. Lawrence Islands	Ontario	1905	(150 acres)
Broder Park	Ontario	1919	(20 acres)
Pt. Pelee Park	Ontario, on lake Erie	1918	[illegible]
Vidal's Point	Saskatchewan	1921	(17 acres)
Little Manito Lake Reserve	Saskatchewan	[1]	Vacant lands around lakes.
Prince Albert Park	Saskatchewan	1927	1,377
Tar Sand Reserve	Alberta	[1]	[illegible]
Animal Parks and Reserves.			
Buffalo Park	Near Wainwright, Alberta	1908	197·5
Elk Island Park	Near Lamont, Alberta	1911	51
Nemiskam (Antelope)	Alberta	1922	[illegible]
Wawaskesy (Antelope)	Alberta	1922	54
Menissawok (Antelope)	Saskatchewan	1922	17
Wood Buffalo Park	Alberta and N.W.T.	1922	17,300
Historic Parks.			
Fort Howe	St. John, New Brunswick	1914	(19 acres)
Fort Anne	Annapolis Royal, Nova Scotia	1917	(31 acres)
Fort Beauséjour	New Brunswick	1926	(59 acres)

[1] Reserved by order of the Minister.

PART VII.—CLIMATE AND METEOROLOGY.

Section 1.—The Climate of Canada.[1]

Canada, the northern half of the continent of North America, stretching from the Atlantic to the Pacific, and from the United States boundary to the Arctic ocean, covers an enormous territory, most varied in altitude, in distance from the sea, and in topographical features. It follows, then, quite naturally, that climatic conditions are very varied; and since lofty mountain ranges parallel the coast of the Pacific at no great distance from it, it follows also that the continental type of climate predominates, while only the immediate coast-line of British Columbia possesses a climate of the marine type such as that of northwestern Europe. The Atlantic provinces, although subject to a modified marine type of climate, do not display conditions so mild as those of Europe, on account of the cold Labrador current of the northwestern Atlantic and the prevailing easterly movement of the northern anticyclones.

The most southerly point of the Dominion is Middle island in latitude 41° 41′ (corresponding to that of Rome, Italy), while lands with some agricultural possibilities exist in the valley of the Mackenzie river, near the Arctic circle. The foothill lands of Alberta are at an altitude exceeding 3,000 and even 3,500 feet in the southern portion of the province, while to the north they fall away to 1,000 feet

[1] Contributed by Sir Frederic Stupart, Director of the Meteorological Service, Toronto.

Map of Canada Showing Normal Mean Temperature and Precipitation in January.

along the lower reaches of the Peace river. Eastward the general elevation of 2,000 feet extends to eastern Saskatchewan, while in eastern Manitoba altitudes are generally less than 1,000 feet. Farther eastward the general slope is to sea-level, along the Great Lakes and the St. Lawrence river to the Atlantic ocean; while northward the land slopes slowly in the far West along the Mackenzie river to the Arctic ocean, and in the East much more quickly to the level of Hudson bay.

Between Hudson bay and the St. Lawrence the watersheds are divided by the Laurentian hills, whose general elevation is about 1,000 feet, although the highest elevations near the sea in the northeast reach 6,000 feet. On the Pacific side of the Dominion, the Andean chain with peaks ranging from 10,000 to 13,000 feet cuts off the British Columbian coast and the interior valleys from the great plains of the West already mentioned. These western prairie lands are far removed from the tempering influence of the ocean, while the great mountains of the west and the great inland lakes of the east play important roles in modifying climatic conditions.

British Columbia.—This province, spreading over eleven degrees of latitude, with an average width of 700 miles and some districts of great elevation, has, within its own limits, climates which differ greatly from one another. The littoral region is mild and humid, while the interior valleys and plateaus, on account of the distance from the coast and the higher altitude, have colder and drier winters.

Vancouver island occupies in the Pacific ocean somewhat the same position in regard to the American continent that Great Britain occupies in the Atlantic towards Europe, besides lying between nearly the same parallels of latitude. The climate, as in all other parts of British Columbia, varies much with the orographical features. The annual rainfall along the western coast of the island is very great, generally exceeding 100 inches, while on the southeastern tip it is scarcely more than a third of that. A comparatively dry period extends from May to September, while copious rains fall between September and March. The mean monthly and mean annual temperatures correspond very closely with those of England; the summers are quite as long and severe frosts scarcely ever occur.

On what is usually termed the lower mainland of British Columbia the climate is everywhere equable and mild. The lower Fraser valley in its northward reach to its junction with the Thompson river traverses latitudes corresponding to those of the southern half of England. Spring opens early, the summers are warm, while the winters, which are mild and rainy near the coast, increase somewhat in severity with increasing distance from the sea.

The change in climate between the east and west sides of the Coast range is decidedly abrupt. The Pacific winds yield much of their moisture in ascending the western slopes of the mountains, while the air which flows on the eastern slopes or is drawn down to the lower levels is drier. Hence the interior plateaus between the Coast and Selkirk ranges possess a relatively dry climate; the summers are warmer and the winters colder than on the lower mainland. The cold of winter, however, is seldom severe, while the hottest days of summer are rendered pleasant by the fact that the air is dry and the nights are cool.

In all the lower levels of British Columbia, March is distinctly a spring month. In the more southerly divisions the mean temperature of April corresponds very closely with the mean temperature of the same month in England, while the summer months may very well be compared with those of southern Ontario, except that the air is much drier and the rainfall scanty. This is a fine fruit-growing country, and orchards and vineyards, even in the higher reaches of the valleys, yield fine and

Map of Canada Showing Normal Mean Temperature and Precipitation in July.

large crops. In the more northerly districts of the province, the climate near the coast is distinctly wet but mild. Observations at Prince Rupert show an annual precipitation of 103 inches, an average January temperature of 32° Fahrenheit and an average July temperature of 57°, which is not unlike the record of parts of Scotland. On the interior plateaus of the central and northern districts, very generally at an altitude exceeding 3,000 feet, the climate becomes more severe with increase of distance from the coast and with increase of latitude, but large areas are suitable for mixed farming and ranching.

Alberta.—It is doubtful whether any other territory on the surface of the globe has a climate as variable, in the winter, as that of this province. The normal winter is cold, and in some years extreme cold persists from November to March, but in other years the chinook wind dominates the winter, warm days with bright sunshine frequently occurring. As instances we may refer to November 1890, with a mean temperature at Calgary of 39°, November 1896, mean temperature 2°, and to January 1906, when the mean temperature was 6° below zero, while the mean of the January of the following year was 26° above zero.

An average daily maximum of 53° at Calgary, 53° at Edmonton, and 58° at Medicine Hat, indicates very clearly that April is truly a spring month, and confirms the statement that spring seeding is well under way, and in some years complete, in April. The upward trend of the temperature curve is rapid during the month and continues so during May and June. From the middle of May until the end of July occurs the heaviest rainfall of the year, a rainfall which is, on the average, nearly equal to that of Ontario or Quebec during the same period, but varies considerably from year to year.

Bright, hot days may be confidently expected during July and August, temperatures occasionally exceeding 90°, while in a few exceptional years 100° may be reached or exceeded in some southern districts. The average mean maxima, however, are 82° at Medicine Hat, 75° at Calgary, 74° at Edmonton, figures which indicate a not unpleasant warmth, while the corresponding minima show that the nights are pleasantly cool after the heat of the day. An important fact in connection with the climatology of Alberta is that the isotherms in the summer months run nearly north and south, so that the mean summer temperature is almost as high in the more northerly regions as in the southern districts.

Thus Dunvegan in the Peace River country and Chipewyan on lake Athabasca have nearly the same summer temperature as Calgary and Edmonton; while it is said that with the longer period of sunlight, plant life in the north makes more rapid growth than in the south. The effect of latitude, however, begins to be evident towards the end of August in the more rapidly diminishing temperature at the northern stations. On the average the winter, December to March, has mean temperatures distributed from south to north as shown by these figures:—Calgary 18°, Edmonton 14°, Dunvegan 6°, Chipewyan 3° below zero.

The chinook wind, one of the characteristic features of the climate of Alberta, usually blows strongly from a southwest or west direction. Although of more frequent occurrence in the southern districts, it is by no means uncommon even in the Peace river country. Sometimes a change of wind from the northeast and north to the southwest will, in Alberta, cause a rise of temperature from perhaps 20° below zero to 40° above zero in a few hours. Largely to the effect of this wind is due the fact that the ground is usually bare of snow over large areas of the prairies of southern Alberta during the winter.

Saskatchewan.—The southern half of this province is almost wholly prairie land, and it is only to the northward of the Saskatchewan river that any extensive forest areas are to be found. The climate is similar to that of Manitoba. It is like that of Alberta, however, in respect to the rather earlier commencement of spring in the southwestern portion as compared with a generally later opening in the north and east, while in midwinter the chinook extends sometimes into this province, occasionally as far east as Regina. Up to the end of April the temperature of southern Saskatchewan is somewhat higher than that of southern Manitoba, but from May onward through the summer it is a little lower and remains so until December. The mean daily range of temperature during the summer months is here, as in other prairie provinces, very large, amounting to 25° or even 30°. Occasionally during both early June and late August the temperature goes dangerously near the freezing point, and there are several instances on record where considerable damage was done to unripened crops by frost. The mean total annual precipitation is from 15 to 18 inches, of which nearly 60 p.c. falls during the growing season, from May to the end of August. Snowfall is from 30 to 35 inches (that is, from 3 to 3½ inches of water) in the western and southern districts, and from 40 to 50 inches in some of the northern and eastern districts.

Manitoba.—This province is almost in the centre of the continent about midway between the Atlantic and Pacific oceans, and also midway between the Gulf of Mexico and the Arctic ocean. As it is many hundreds of miles distant from any high mountains, the topographical features are not pronounced. About two-thirds of the total area, including lakes Winnipeg, Manitoba and Winnipegosis, are at a level of less than 1,000 feet, while to the westward the levels increase gradually to about 1,600 feet, with a few districts a little higher. In view of its geographical situation and these topographical features, it is not surprising that the climate is typically continental in character, and that such differences as exist between districts are due chiefly to latitude and elevation. The very pronounced contrast between the continental and littoral type of climate is well illustrated by some comparisons between Manitoba and British Columbia. The mean range between the warmest and coldest months of the year is 70° at Winnipeg, while at Victoria, on the Pacific Coast, it is but 21°. The absolute recorded range of temperature at Winnipeg is 153°, and at Victoria 97°. A change of temperature of 40° in 24 hours is not exceptional in winter in Manitoba, while a change of 49° has occurred. The average daily change is from 20° to 25° in Winnipeg, while in Victoria it is from 5° to 8°. These instances of the continental type of climate are, of course, just as typical of Saskatchewan as of Manitoba.

Great variations in the character of a winter are possible in Manitoba as in the other prairie provinces. There is a January on record with a mean temperature 10° above normal, a February 25° above normal, and a February 13° below normal. Variations in the temperature of the summer months are much less pronounced; the mean temperature of the warmest July at Winnipeg was 70°, the coolest 61°.

The change from winter to spring is much more rapid than in Great Britain or western Europe; frequently April, wintry at the beginning, ends with conditions approaching those of midsummer. The average April is, however, not so warm in Manitoba as in England. The nights are cold, but on the other hand the day temperature rises quite high. The frost leaves the ground early and the farmer may commence sowing at a date very much earlier than the mean temperature would lead one to consider possible.

The mean temperature of May is as high as in the south of England, with the afternoon temperatures considerably higher; and while frosts occasionally occur they are seldom severe. Light snowfalls may in some years occur in this month, sometimes accompanied by high winds, but these storms are seldom injurious to agriculture. During June the temperature continues to increase with daily maxima on the average ranging between 70° and 75°, according to district. In July the daily maximum averages 75° to 80° in the southern districts. Mean temperatures are 65° and higher. Few summers go by without several spells of heat; during these the temperature exceeds 90°. In August, 1886, 103° was recorded in Winnipeg, and 104° further west. In July, 1914 the high record from the south central district was 107°, and in August of the same year, 105°.

After the middle of August, the mean temperature exhibits a rather rapid fall on the average; and the last fortnight is a period of uneasiness to farmers, particularly in those years when seeding was later than usual in the spring, since it is known that light frosts occur in some years, with consequent damage to wheat not fully matured. Even if frosts do occur, summer is not yet over, for periods of exceptionally warm weather are not infrequent even in September. October is the true autumn month, when the normal temperature curve exhibits its most rapid decline, and before its close nightly frosts occur, while on some days the temperature may not rise above the freezing point.

The winter may be regarded as lasting for five months, from November to the end of March. It is not usually, however, until the last week in November that the temperature falls to zero for a few days. It is seldom that a temperature so low as zero is registered after March 25.

At Winnipeg the greatest annual precipitation on record was that of 29·22 inches in 1878, and the least, 14·38 inches in 1886. In this latter year only 4·22 inches fell during the period from May to August. Most of the summer rainfall occurs in thunderstorms, which at times are quite heavy, accompanied by violent squalls. Less frequently hail accompanies these storms. Very rarely do these storms attain something like the energy of the tornado, which is not uncommon on the great plains to the south. In general the precipitation of Manitoba is not subject to as much fluctuation from year to year as that of Alberta and Saskatchewan and is besides, on the average, a little greater in amount.

The snowfall of Manitoba ranges from 50 to 55 inches in the eastern and southwestern districts, and from 40 to 45 inches in the central and northwestern districts. The ground is usually covered with snow from December to March, but it is seldom that the depth is very great. In most winters there are several northwest gales succeeding the passage of low pressure areas, and in these storms, accompanied by a blinding drift of dry snow whirled up off the ground, we have the well known "blizzard" of the prairies.

Ontario.—The province of Ontario is a vast territory, extending over 1 degrees of latitude, from a point as far south as Rome, Italy, to a point as far north as northern Denmark. Its breadth includes 20° of longitude, from near the confluence of the Ottawa and St. Lawrence rivers westward to the boundary of Manitoba, but a narrow portion forming a sort of peninsula surrounded by lakes Ontario, Erie, St. Clair, and Huron, is the most southerly region, the oldest in point of settlement, and the most populous. The north and east shores of all the Great Lakes except Michigan belong to Ontario, while to the north about half the west shore line of Hudson bay lies in this province. The climate of a great part of Ontario

empered either by the Great Lakes or by the great inland sea. In the northwestern portions, however, the cold waves of winter, moving east from the prairies, suffer little moderation in intensity. Altitude also plays some part in climatic variations, the country rising away from the lake levels to heights which reach 1,800 feet just south of the Georgian bay, and to over 1,500 feet near the Ottawa river.

The climate of the peninsula of Ontario is much warmer than that of the northern districts. The first part of March is cold as a rule, but towards the end bright sunshiny days, the rapid disappearance of snow, which now lies only in sheltered places, and the swelling buds, give omen of spring, which soon comes on apace. April is truly spring, for although light snowfalls occasionally occur, the mean temperature ranges from 40° to 45°, rainfall is generally 2 to 3 inches, and sunshine reaches a total of nearly 200 hours, with wild flowers in bloom and trees leafing before the close of the month. During May the high percentage of bright sunshine, with ample rain, stimulates growth to rapid progress. Frosts are quite infrequent, and by May 24 most of the trees are in whole leaf.

The summers, while warm, are not oppressively hot, the mean temperature of July at the more southern points not much exceeding 70°, while in June and August it is a little lower. Wholly overcast and rainy days are of rare occurrence, the rain generally falling in showers and thunderstorms of short duration; indeed, from the middle of June to the end of August we may expect no day without a few sunny hours.

The autumn sets in gradually, and while frosts may sometimes occur as early as September 20, it is usually well on in October before there is anything severe, and towards the end of November before the mean daily temperature falls to the freezing point.

Northward and eastward from lake Ontario to the Ottawa valley the spring opens somewhat later than in the south; but from mid-April until the end of August the temperature and rainfall are much the same as in the southern parts of the Province, modified in certain districts by the effect of higher altitude, and in other districts by the effect of close proximity to the Great Lakes. In September, however, there is a more rapid downward trend of temperature in the north. Killing frosts occur at an earlier date, and the whole north country is usually covered with snow before the close of November, while all the southern counties are bare. In the north the mean temperature of the three winter months is fully 10 degrees lower than in the south, but during March and April the temperature curves of the two districts converge. The lowest temperature of which there is record at Ottawa is minus 33°, at Toronto and London minus 26°. Yet at the southern stations such extremes are of very rare occurrence, while at northern stations they are not infrequently recorded.

That portion of the province north of the main line of the Canadian Pacific Railway, sometimes called New Ontario, lies between lakes Superior and Huron and Hudson bay, and includes the major portion of the province. This region was long only sparsely settled, with but few meteorological observations. In recent years the great increase in mining activity in the north, and the extension of agriculture into the "clay belt", have largely multiplied the population of this region, with consequent opportunity for extending the climatic data. There are, however, immense areas which are still seldom traversed. This region has very cold winters, especially that northwestern portion called the district of Patricia. In the more southerly parts of New Ontario the spring is well in evidence in April, and by the first of June trees are in leaf. Northward towards James bay the opening of spring is later, with a probability of frosts in June; but the summer is fairly warm near

James bay, with frequent temperatures of 80° and occasional occurrences of maxima exceeding 90°. In some of the more elevated regions sudden and severe drops in temperature occur in spring and fall with the advance of cool waves, which are not felt with comparable severity in the remainder of the north.

Near lakes Nipissing and Temiskaming the rainfall of the growing season, May to August, is 10 to 15 inches, very similar to that of southern Ontario. Northward and northwestward this diminishes to less than 10 inches. The winter snowfall is between 70 and 100 inches. In most years the mild spells are not sufficiently long or warm enough to remove much of the snow, which gradually accumulates in depth as the winter passes. North of lake Superior and west to the lake of the Woods there is a zone with rainfall from May to August generally exceeding 10 inches, and with a winter snowfall of 40 to 80 inches.

Quebec.—The province of Quebec is, like Ontario, an immense area of which only a small part is thickly populated; but here too the great natural resources of the north and northwest are attracting settlement at a rapidly increasing rate. The whole area, between 22 degrees of longitude, extends northward from latitude 45° to the barren lands on the shores of Hudson strait. The southwest and warmest districts are not, as in the Ontario peninsula, protected by the Great Lakes; the winters are, therefore, considerably colder and the autumnal frosts occur a little earlier. Of the Montreal climate, however, one of the most striking features is the rapidity of the advance of spring. While March is essentially a winter month, April has a mean temperature nearly as warm as in Toronto, while May and the summer months are all slightly warmer than in Toronto. For September and October the figures are quite similar to those of southwestern Ontario, but in November the temperature trends downward more rapidly, with January 10° colder on the average than in Toronto.

Downstream at Quebec city we find the winter months three or four degrees colder than at Montreal, and the summers two or three degrees cooler. On the south shore of the estuary, and eastward into the Gaspé peninsula, the summers are 5° or 6° cooler, or in some more elevated regions, 7° or more cooler than at Montreal. The warmest month averages from 62° to 65°, according to locality. The winters are colder than at Montreal, especially at the higher levels nearer the northern boundary of New Brunswick.

North of the St. Lawrence river the summers are warm; in fact there are occasionally recorded temperatures of 100°. Hot as the days may be, however, there is a more pronounced fall in temperature at night than occurs at either Montreal or Quebec, or at any other point along the river. Frosts occur in some years in midsummer, although the temperature a few days later may again be very high. In the winter months the cold becomes more severe as we go north from the river, till we find January with an average temperature of zero in the region near lake St. John and along the line of the National Transcontinental Railway. In severe cold waves temperatures of 20° to 45° below zero may be recorded. Still further north on the eastern shore of James bay at fort George we find an average temperature of 1° below zero in January and February. Temperatures of 90° are, however, recorded sometimes in summer, with a mean temperature of about 60° in July.

On the north shore of the Gulf the winters are not so cold as in the northern interior, the intensity of the cold waves breaking down as they approach the Atlantic. On the other hand, the summers are very much cooler as we go east to the Labrador coast, the mean temperature of July and August usually remaining below 50° while on the warmest days 75° will be the maximum.

For four months in the St. Lawrence valley the ground is usually covered with between one and three feet of snow. Although winter rains not infrequently occur, especially along the south of the river, it is not till the end of March that they are heavy enough to commence to carry away the snow. In April the total rainfall will vary f om one to two inches; in May it will amount to nearly three inches in practically all districts as far north as the Height of Land. Two and one-half to four inches all in each month from May to September. In October the total precipitation s about the same but is partly snow in the northern and eastern districts. The winter snowfall varies from 7 to 10 feet, and is considered a great asset in that it makes possible travel and traffic through the forests, where lumbering is carried on on a great scale in the winter months.

North of the Height of Land, and east of Hudson bay to the Labrador coast, ies an immense territory of which little is known. What information we have uggests that the summers are too short for agriculture, although garden stuff will nature in some of the more southern localities, while sheep and cattle have been uccessfully kept at some of the posts of the Hudson's Bay Co., interested mainly n these regions in dealing with fur trappers.

The Atlantic Provinces.—These provinces have a climate which is in many espects comparable with that of southern Ontario. The winters are warmer in ome parts of southwestern Nova Scotia than in Toronto. In New Brunswick the outhern counties have a winter with much the same temperature on the average s that of the upper St. Lawrence valley in Ontario, while the northern counties esemble, in the same season, the Ottawa valley. At Yarmouth, in the extreme outhwestern portion of Nova Scotia, the coolest month is February, with a mean emperature of 25° as compared with 22° at Toronto. At Kentville, in the Annapolis alley, the same month has a mean of 19°, while Stillwater in the east has a mean of 6°. At Sydney in Cape Breton island the mean is 20°, and at Charlottetown in rince Edward Island 16°. At Fredericton the coldest month has a mean of 13°, hile further north in New Brunswick, Grand Falls, Williamsburg and Dalhousie ave a mean temperature of 9°. The comparative cold of the winters in this maritime position is somewhat surprising to a European, but it should be remembered hat the waves of high pressure from the interior of the continent have a general otion from northwest to southeast, so that the frigid air from the northern interior f Quebec frequently flows over the Atlantic provinces in winter.

The summers are not quite so warm as in southern Ontario, although warmer han in the south of England. Temperatures exceeding 85°, and at times 95°, ometimes occur. Spring opens a little later, but temperatures in southern regions o not fall so rapidly in October as in southern Ontario. In the interior of New runswick the extremes of heat and cold are more pronounced than in Nova Scotia.

The average precipitation of these provinces is between 40 and 45 inches, except long the southern coastline of Nova Scotia, where it is nearly 10 inches greater. he snowfall is very heavy in northern New Brunswick, where it exceeds 100 inches. diminishes southward to Nova Scotia, where the precipitation accompanying inter storms usually is partly in the form of rain.

The climate of these provinces is eminently suited to agriculture and the raising cattle, while in such situations as the Annapolis valley orchards bear fruit of mous quality. A trip through the Annapolis valley in October will amply repay ne tourist, as nothing can be conceived more beautiful than the gorgeous autumn nts which everywhere enhance the loveliness of the landscape.

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Section 2.—The Factors which control Canadian Weather.

Under the above heading, Sir Frederick Stupart, Director of the Dominio Meteorological Service, Toronto, contributed an article which appeared at pp. 2(31 of the 1924 edition of the Year Book, also at pp. 36-40 of the 1925 edition.

Section 3.—The Distribution of Precipitation in Canada

An article on "The Distribution of Precipitation in Canada", contributed b A. J. Connor, Climatologist, Dominion Meteorological Office, Toronto, appeared pp. 42-46 of the 1926 edition of the Year Book.

Section 4.—The Meteorological Service of Canada.

Under the above heading Sir Frederick Stupart contributed a short artic descriptive of the growth and present activities of the Meteorological Service, whi for reasons of space is not reprinted here, to the 1922-23 edition of the Year Bo (pp. 43-47); to it the interested reader is referred.

Section 5.—Meteorological Tables.

Tables showing the normal temperature and precipitation at selected Canadi stations in each of the provinces, also the averages of sunshine, wind and weath at such stations, will be found at pp. 51-63 inclusive of the 1927-28 edition of t Year Book. They are not reprinted here because of the pressure on the sp of the volume.

CHAPTER II.—HISTORY AND CHRONOLOGY.

PART I.—HISTORY.

In the 1922-23 edition of the Canada Year Book, on pp. 60-80, will be found an outline of the history of Canada, which is not reprinted here, for reasons of space. A select bibliography of historical works relating to Canada was contributed by Adam Shortt, C.M.G., LL.D., F.R.S.C., Chairman of the Historical Documents Publication Board, Ottawa, to the 1925 edition of the Canada Year Book, where it appears on pp. 53-55.

PART II.—CHRONOLOGY, 1497 to 1928.

1497. June 24, Eastern coast of North America discovered by John Cabot.
1498. Cabot discovers Hudson strait.
1501. Gaspar Corte Real visits Newfoundland and Labrador.
1524. Verrazano explores the coast of Nova Scotia.
1534. June 21, Landing of Jacques Cartier at Esquimaux bay.
1535. Cartier's second voyage. He ascends the St. Lawrence to Stadacona (Quebec), (Sept. 14) and Hochelaga (Montreal), (Oct. 2).
1541. Cartier's third voyage.
1542-3. De Roberval and his party winter at Cape Rouge, and are rescued by Cartier on his fourth voyage.
1557. Sept. 1, Death of Cartier at St. Malo, France.
1592. Straits of Juan de Fuca discovered by de Fuca.
1603. June 22, Champlain's first landing in Canada, at Quebec.
1605. Founding of Port Royal (Annapolis, N.S.).
1608. Champlain's second visit. July 3, Founding of Quebec.
1609. July, Champlain discovers lake Champlain.
1610-11. Hudson explores Hudson bay and James bay.
1611. Brulé ascends the Ottawa river.
1612. Oct. 15, Champlain made lieutenant-general of new France.
1613. June, Champlain ascends the Ottawa river.
1615. Champlain explores lakes Nipissing, Huron and Ontario (discovered by Brulé and Le Caron).
1616. First schools opened at Three Rivers and Tadoussac.
1620. Population of Quebec, 60 persons.
1621. Code of laws issued and register of births, deaths and marriages opened in Quebec.
1622. Lake Superior discovered by Brulé.
1623. First British settlement of Nova Scotia.
1627. New France and Acadia granted to the Company of 100 Associates.
1628. Port Royal taken by Sir David Kirke.
1629. April 24. Treaty of Susa between France and England. July 20, Quebec taken by Sir David Kirke.
1632. March 29, Canada and Acadia restored to France by the Treaty of St. Germain-en-Laye.
1633. May 23, Champlain made first governor of New France.
1634. July 4, Founding of Three Rivers.
1634-35. Exploration of the Great Lakes by Nicolet.
1635. Dec. 25, Death of Champlain at Quebec.
1638. June 11, First recorded earthquake in Canada.
1640. Discovery of lake Erie by Chaumonot and Brébeuf.
1641. Resident population of New France, 240.
1642. May 17, Founding of Ville-Marie (Montreal).
1646. Exploration of the Saguenay by Dablon.
1647. Lake St. John discovered by de Quen.
1648. March 5, Council of New France created.
1649. March 16-17, Murder of Fathers Brébeuf and Lalemant by Indians.
1654. Aug., Acadia taken by an expedition from New England.
1655. Nov. 3, Acadia restored to France by the Treaty of Westminster.
1659. June 16, François de Laval arrives in Canada as Vicar-Apostolic.
1660. May 21, Dollard des Ormeaux and sixteen companions killed at the Long Sault, Ottawa river.
1663. Company of 100 Associates dissolves. Feb. 5, Severe earthquake. April, Sovereign Council of New France established. Population of New France, 2,500, of whom 800 were in Quebec.
1664. May, Company of the West Indies founded.
1665. Mar. 23, Talon appointed intendant. First census. Population of New France, 3,215.
1667. July 21, Acadia restored to France by the Treaty of Breda. White population of New France, 3,918.

1668. Mission at Sault Ste. Marie founded by Marquette.
1670. May 13, Charter of the Hudson's Bay Company granted.
1671. Population of Acadia, 441.
1672. Population of New France, 6,705. April 6, Comte de Frontenac, governor.
1673. June 13, Cataraqui (Kingston) founded.
1674. Oct. 1, Laval becomes first Bishop of Quebec.
1675. Population of New France, 7,832.
1678. Niagara Falls visited by Hennepin.
1679. Ship *Le Griffon* built on Niagara river above the falls by La Salle. Population of New France, 9,400; of Acadia, 515.
1682. Frontenac recalled.
1683. Population of New France, 10,251.
1685. Card money issued.
1686. Population of New France, 12,373; of Acadia, 885.
1687. March 18, La Salle assassinated.
1689. June 7, Frontenac re-appointed governor. Aug. 5, Massacre of whites by Indians at Lachine.
1690. May 21, Sir William Phips captures Port Royal, but is repulsed in an attack on Quebec (Oct. 16-21).
1691. Kelsey, of the Hudson's Bay Co., reaches the Rocky Mountains.
1692. Population of New France, 12,431. Oct. 22, Defence of Verchères against Indians by Magdeleine de Verchères.
1693. Population of Acadia, 1,009.
1697. Sept. 20, By the Treaty of Ryswick, places taken during the war were mutually restored. D'Iberville defeats the Hudson's Bay Co's ships on Hudson bay.
1698. Nov. 28, Death of Frontenac. Population of New France, 15,355.
1703. June 16, Sovereign Council of Canada becomes Superior Council and membership increased from 7 to 12.
1706. Population of New France, 16,417.
1709. British invasion of Canada.
1710. Oct. 13, Port Royal taken by Nicholson.
1711. Sept. 1, Part of Sir H. Walker's fleet, proceeding against Quebec, wrecked off the Seven Islands.
1713. April 11, Treaty of Utrecht; Hudson bay, Acadia and Newfoundland ceded to Great Britain. Aug., Louisbourg founded by the French. Population of New France, 18,119.
1720. Population of New France, 24,234; of Isle St. Jean (P.E.I.), about 100. April 25, Governor and Council of Nova Scotia appointed.
1721. June 19, Burning of about one half of Montreal.
1727. Population of New France, 30,613.
1728. Population of Isle St. Jean (P.E.I.), 330.
1731. Population of the north of the peninsula of Acadia, 6,000.
1734. Road opened from Quebec to Montreal. Population of New France 37,716.
1737. Iron smelted at St. Maurice. French population of the north of the Acadian peninsula, 7,598.
1739. Population of New France, 42,701.
1745. June 17, Taking of Louisbourg by Pepperell and Warren.
1748. Oct. 18, Treaty of Aix-la-Chapelle Louisbourg restored to France in exchange for Madras.
1749. June 21, Founding of Halifax—British immigrants brought to Nova Scotia by Governor Cornwallis, 2,54 persons. Fort Rouillé (Toronto) built.
1750. St. Paul's Church, Halifax (oldest Anglican church in Canada), built
1752. March 25, Issue of the Halifax "Gazette", first paper in Canada. British and German population of Nova Scotia, 4,203.
1754. Population of New France, 55,009.
1755. Sept. 10, Expulsion of the Acadians from Nova Scotia.
1756. Seven Years' War between Great Britain and France begins.
1758. July 26, Final capture of Louisbourg by the British. Oct. 7, First meeting of the legislature of Nova Scotia.
1759. July 25, Taking of Fort Niagara by the British. July 26, Beginning of the siege of Quebec. July 31, French victory at Beauport Flats. Sept. 13 Defeat of the French on the Plains of Abraham. Death of Wolfe. Sept. 14, Death of Montcalm. Sept. 18, Surrender of Quebec.
1760. April 28, Victory of the French under Lévis at Ste. Foy. Sept. 8, Surrender of Montreal. Military rule set up in Canada.
1762. British population of Nova Scotia 8,104. First British settlement in New Brunswick.
1763. Feb. 10, Treaty of Paris, by which Canada and its dependencies are ceded to the British. May Rising of Indians under Pontiac who take a number of forts and defeat the British at Bloody Run (July 31). Oct. 7, Civil government proclaimed. Cape Breton and Isle St. Jean annexed to Nova Scotia; Labrador, Anticosti and Magdalen islands to Newfoundland. Nov. 21, General James Murray appointed governor in chief. First Canadian post offices established at Montreal, Three Rivers and Quebec.
1764. June 21, First issue of the Quebec "Gazette". Aug. 13, Civil government established.
1765. Publication of the first book printed in Canada, "Catéchisme du Diocèse de Sens". May 18, Montreal nearly destroyed by fire. Population of Canada, 69,810.

1766. July 24, Peace made with Pontiac at Oswego.

1768. Charlottetown, P.E.I., founded. April 11, Great fire at Montreal. April 12, Sir Guy Carleton (Lord Dorchester) governor in chief.

1769. Isle St. Jean (Prince Edward Island) separated from Nova Scotia.

1770-72. Hearne's journey to the Coppermine and Slave rivers and Great Slave lake.

1773. Suppression of the order of Jesuits in Canada and escheat of their estates.

1774. June 22, The Quebec Act passed.

1775. May 1, The Quebec Act comes into force. Outbreak of the American Revolution. Montgomery and Arnold invade Canada. Nov. 12, Montgomery takes Montreal; Dec. 31, is defeated and killed in an attack on Quebec.

1776. The Americans are defeated and driven from Canada by Carleton.

1777. Sept. 18, General Frederick Haldimand governor in chief.

1778. Captain Jas. Cook explores Nootka sound and claims the northwest coast of America for Great Britain. June 3, First issue of the Montreal "Gazette".

1783. Sept. 3, Treaty of Versailles, recognizing the independence of the United States. Organization of the Northwest Company at Montreal. Kingston, Ont., and Saint John, N.B., founded by United Empire Loyalists.

1784. Population of Canada, 113,012. Aug. 16, New Brunswick and (Aug. 26) Cape Breton separated from Nova Scotia.

1785. May 18, Incorporation of Parrtown (Saint John, N.B.).

1786. April 22, Lord Dorchester again governor in chief. Oct. 23, Government of New Brunswick moved from Saint John to Fredericton.

1787. C. Inglis appointed Anglican bishop of Nova Scotia—the first colonial bishopric in the British Empire.

1788. King's College, Windsor, N.S., opened. Sailing packet service established between Great Britain and Halifax.

1789. Quebec and Halifax Agricultural Societies established.

1790. Spain surrenders her exclusive rights on the Pacific coast. Population of Canada, 161,311. (This census does not include what becomes in the next year Upper Canada).

1791. The Constitutional Act divides the province of Quebec into Upper and Lower Canada, each with a lieutenant-governor and legislature. The Act goes into force Dec. 26. Sept. 12, Colonel J. G. Simcoe, first lieutenant-governor of Upper Canada.

1792. Sept. 17, First legislature of Upper Canada opened at Newark (Niagara). Dec. 17, First legislature of Lower Canada opened at Quebec. Vancouver island circumnavigated by Vancouver.

1793. April 18, First issue of the "Upper Canada Gazette", June 28, Jacob Mountain appointed first Anglican bishop of Quebec. July 9, Importation of slaves into Upper Canada forbidden. Rocky mountains crossed by (Sir) Alexander Mackenzie. York (Toronto) founded by Simcoe.

1794. Nov. 19, Jay's Treaty between Great Britain and the United States.

1795. Pacific coast of Canada finally given up by the Spaniards.

1796. Government of Upper Canada moved from Niagara to York (Toronto).

1798. St. John's island (population 4,500) re-named Prince Edward Island.

1800. Founding of New Brunswick College, Fredericton (now University of N.B.). The Rocky mountains crossed by David Thompson.

1803. Settlers sent by Lord Selkirk to Prince Edward Island.

1806. Nov. 22, Issue of "Le Canadien"—first wholly French newspaper. Population—Upper Canada, 70,718; Lower Canada, 250,000; New Brunswick, 35,000; P.E.I., 9,676.

1807. Simon Fraser explores the Fraser river. Estimated population of Nova Scotia, 65,000.

1809. Nov. 4, First Canadian steamer runs from Montreal to Quebec.

1811. Lord Selkirk's Red River settlement founded on land granted by Hudson's Bay Company.

1812. June 18, Declaration of war by the United States. July 12, Americans under Hull cross the Detroit river. Aug. 16, Detroit surrendered by Hull to Brock. Oct. 13, Defeat of the Americans at Queenston Heights and death of Gen. Brock.

1813. Jan. 22, British victory at Frenchtown. April 27, York (Toronto) taken and burned by the Americans. June 5, British victory at Stoney Creek. June 24, British, warned by Laura Secord, capture an American force at Beaver Dams. Sept. 10, Commodore Perry destroys the British flotilla on lake Erie. Oct. 5, Americans under Harrison defeat the British at Moraviantown. Tecumseh killed. Oct. 26, Victory of French-Canadian troops under de Salaberry at Chateauguay. Nov. 11, Defeat of the Americans at Crysler's Farm. British storm Fort Niagara and burn Buffalo.

1814. March 30, Americans repulsed at La Colle. May 6, Capture of Oswego by the British. July 5, American victory at Chippawa.

July 25, British victory at Lundy's Lane. July, British from Nova Scotia invade and occupy northern Maine. Sept. 11, British defeat at Plattsburg on lake Champlain. Dec. 24, Treaty of Ghent ends the war. Population — Upper Canada, 95,000; Lower Canada, 335,000.

1815. July 3, Treaty of London regulates trade with the United States. The Red River settlement destroyed by the Northwest Company but restored by Governor Semple.

1816. June 19, Governor Semple killed. The Red River settlement again destroyed.

1817. July 18, First treaty with the Northwest Indians. Lord Selkirk restores the Red River settlement. Opening of the Bank of Montreal; first note issued Oct. 1. Population of Nova Scotia, 81,351.

1818. Oct. 20, Convention at London regulating North American fisheries. Dalhousie College, Halifax, founded. Bank of Quebec founded.

1819–22. Franklin's overland Arctic expedition.

1820. Oct. 16, Cape Breton re-annexed to Nova Scotia.

1821. March 26, The Northwest Company absorbed by the Hudson's Bay Company. Charter given to McGill College.

1822. Population of Lower Canada, 427,465.

1824. Population of Upper Canada, 150,066; of New Brunswick, 74,176.

1825. Oct. 6, Great fire in the Miramichi district, N. B. Opening of the Lachine canal. Population of Lower Canada, 479,288.

1826. Founding of Bytown (Ottawa).

1827. Sept. 29, Convention of London relating to the territory west of the Rocky mountains. Population of Nova Scotia, including Cape Breton, 123,630.

1828. The Methodist Church of Upper Canada separated from that of the United States.

1829. Nov. 27, First Welland canal opened. McGill University opened. Upper Canada College founded.

1831. June 1, The North Magnetic Pole discovered by (Sir) James Ross. Population — Upper Canada, 236,702; Lower Canada, 553,131; Assiniboia, 2,390.

1832. Outbreak of cholera in Canada. Incorporation of Quebec and Montreal. Bank of Nova Scotia founded. May 30, Opening of the Rideau canal.

1833. Aug. 18, The Steamer *Royal William*, built at Quebec, leaves Pictou for England.

1834. Feb. 21, The Ninety-Two Resolutions on public grievances passed by the Assembly of Lower Canada. Mar. 6, Incorporation of Toronto. Population of Upper Canada, 321,145; of New Brunswick, 119,457; of Assiniboia, 3,356.

1836. July 21, Opening of the first railway in Canada from Laprairie to St. John's, Que. Victoria University opened at Cobourg (afterwards moved to Toronto).

1837. Report of the Canada Commissioners. Rebellions in Lower Canada (Papineau) and Upper Canada (W. L. Mackenzie). Nov. 23, Gas lighting first used in Montreal.

1838. Feb. 10, Constitution of Lower Canada suspended and Special Council created. March 30, The Earl of Durham governor in chief. April 27, Martial law revoked. June 28, Amnesty to political prisoners proclaimed. Nov. 1, Lord Durham, censured by British Parliament, resigns. Population—Upper Canada, 339,442; Assiniboia, 3,966; Nova Scotia, 202,575.

1839. Feb. 11, Lord Durham's report submitted to Parliament. John Strachan made first Anglican bishop of Toronto.

1840. July 23, Passing of the Act of Union. First ship of the Cunard line arrived at Halifax. July 28, Death of Lord Durham.

1841. Feb. 10, Union of the two provinces as the province of Canada, with Kingston as capital. Feb. 13, Draper-Ogden administration. April 10, Halifax incorporated. June 13, Meeting of the first United Parliament. Sept. 19, Death of Lord Sydenham. Population of Upper Canada, 455,668; of P.E.I. 47,042.

1842. March 10, Opening of Queen's University, Kingston. Aug. 9, The Ashburton Treaty. Sept. 16, Baldwin-Lafontaine administration.

1843. June 4, Victoria, B.C., founded. Dec. 12, Draper-Viger administration. King's (now University) College, Toronto, opened.

1844. May 10, Capital moved from Kingston to Montreal. Knox College, Toronto, founded. Population of Lower Canada, 697,084.

1845. May 28 and June 28, Great fires in Quebec. Franklin starts on his last Arctic expedition.

1846. May 18, Kingston incorporated. June 15, Oregon Boundary Treaty. July 18, Draper-Papineau administration. First telegraph line, operated by the Toronto, Hamilton, Niagara and St. Catharines Telegraph Co. opened.

1847. May 29, Sherwood-Papineau administration. Nov. 25, Montreal-Lachine railway opened.

1848. March 11, Lafontaine-Baldwin administration. May 30, Fredericton incorporated. Responsible government granted to Nova Scotia and New Brunswick.

1849. April 25, Signing of the Rebellion Losses Act; rioting in Montreal and burning of the Parliament buildings. Nov. 14, Toronto made the capital. Vancouver island granted to the Hudson's Bay Company. Population of Assiniboia, 5,391.

1851. April 6, Transfer of the postal system from the British to the Provincial Government; uniform rate of postage introduced. April 23, Postage stamps issued. Aug. 2, Incorporation of Trinity College, Toronto. Sept. 22, Quebec becomes the capital. Oct. 28, Hincks-Morin administration. Responsible government granted to Prince Edward Island. Population—Upper Canada, 952,004; Lower Canada, 890,261; New Brunswick, 193,800; Nova Scotia, 276,854.

1852. July 8, Great fire at Montreal. Dec. 8, Laval University, Quebec, opened. The Grand Trunk railway chartered.

1854. June 5, Reciprocity Treaty with the United States. Sept. 11, MacNab-Morin ministry. Seigneurial tenure in Lower Canada abolished. Secularization of the clergy reserves.

1855. Jan. 1, Incorporation of Ottawa. Jan. 27, MacNab-Taché administration. March 9, Opening of the Niagara railway suspension bridge. April 17, Incorporation of Charlottetown. Oct. 20, Government moved to Toronto.

1856. The Legislative Council of Canada is made elective. First meeting of the legislature of Vancouver island. May 24, Taché-J. A. Macdonald administration. Oct. 27, Opening of the Grand Trunk railway from Montreal to Toronto. Population of Assiniboia, 6,691.

1857. Nov. 26, J. A. Macdonald-Cartier administration. Dec. 31, Ottawa chosen by Queen Victoria as future capital of Canada.

1858. Feb., Discovery of gold in Fraser River valley. July 1, Introduction of Canadian decimal currency. Aug. 2, Brown-Dorion administration. Aug. 5, Completion of the Atlantic cable; first message sent. Aug. 6, Cartier-J. A. Macdonald administration. Aug. 20, Colony of British Columbia established. Control of Vancouver island surrendered by the Hudson's Bay Company.

1859. Jan., Canadian silver coinage issued. Sept. 24, Government moved to Quebec.

1860. Aug. 8, The Prince of Wales (King Edward VII) arrives at Quebec. Sept. 1, Laying of the corner stone of the Parliament buildings at Ottawa by the Prince of Wales. Prince of Wales College, Charlottetown, founded.

1861. Aug. 14, Great flood at Montreal. Sept. 10, Meeting of the first Anglican provincial synod. Population—Upper Canada, 1,396,091; Lower Canada, 1,111,566; New Brunswick, 252,047; Nova Scotia, 330,857; Prince Edward Island, 80,857.

1862. May 24, Sandfield Macdonald-Sicotte administration. Aug. 2, Victoria, B.C., incorporated.

1863. May 16, Sandfield Macdonald-Dorion administration.

1864. March 30, Taché-J. A. Macdonald administration. Conferences on confederation of British North America; Sept. 1, at Charlottetown; Oct. 10-29, at Quebec. Oct. 19, Raid of American Confederates from Canada on St. Albans, Vermont.

1865. Feb. 3, The Canadian Legislature resolves on an address to the Queen praying for union of the provinces of British North America. Aug. 7, Belleau-J. A. Macdonald administration. Oct. 20, Proclamation fixing the seat of government at Ottawa.

1866. March 17, Termination of the Reciprocity Treaty by the United States. May 31, Raid of Fenians from the United States into Canada; they are defeated at Ridgeway (June 2) and retreat across the border (June 3). June 8, First meeting at Ottawa of the Canadian Legislature. Nov. 17, Proclamation of the union of Vancouver island to British Columbia.

1867. March 29, Royal assent given to the British North America Act. July 1, The Act comes into force; Union of the provinces of Canada, Nova Scotia and New Brunswick as the Dominion of Canada; Upper and Lower Canada made separate provinces as Ontario and Quebec, Viscount Monck first governor-general, Sir John A. Macdonald premier. Nov. 6, Meeting of the first Dominion Parliament.

1868. April 7, Murder of D'Arcy McGee at Ottawa. July 31, The Rupert's Land Act authorizes the acquisition by the Dominion of the Northwest Territories.

1869. June 22, Act providing for the government of the Northwest Territories. Nov. 19, Deed of surrender to the Crown of the Hudson's Bay Company's territorial rights in the Northwest. Outbreak of the Red River Rebellion under Riel.

1870. May 12, Act to establish the province of Manitoba. July 15, Northwest Territories transferred to the Dominion and Manitoba admitted into Confederation. Sept. 24, Wolseley's expedition reaches Fort Garry (Winnipeg); end of the rebellion.

1871. April 2, First Dominion census (populations at this and succeeding enumerations given in chapter on population). April 14, Act establishing uniform currency in the Dominion. May 8, Treaty of Washington, dealing with questions outstanding between the United Kingdom and United States. July 20, British Columbia enters Confederation.

1873. March 5, Opening of the second Dominion Parliament. May 23, Act establishing the Northwest Mounted Police. July 1, Prince Edward Island enters Confederation. Nov. 7, Alexander Mackenzie premier. Nov. 8, Incorporation of Winnipeg.

1874. March 26, Opening of the third Dominion Parliament. May, Ontario Agricultural College, Guelph, opened.

1875. April 8, The Northwest Territories Act establishes a Lieutenant-Governor and Council of the Northwest Territories. April-May, Letting of first contract and commencement of work upon the Canadian Pacific Railway as a Government line. Work commenced at Fort William. June 15, Formation of the Presbyterian Church of Canada.

1876. June 1, Opening of the Royal Military College, Kingston. June 5, First sitting of the Supreme Court of Canada. July 3, Opening of the Intercolonial Railway from Quebec to Halifax.

1877, June 20, Great fire at Saint John, N.B. Oct., First exportation of wheat from Manitoba to the United Kingdom. Founding of the University of Manitoba.

1878. July 1, Canada joins the International Postal Union. Oct. 17, Sir J. A. Macdonald premier.

1879. Feb. 13, Opening of the fourth Dominion Parliament. May 15, Adoption of a protective tariff ("The National Policy").

1880. Royal Canadian Academy of Arts founded; first meeting and exhibition, March 6. May 11, Sir A. T. Galt appointed first Canadian High Commissioner in London. Sept. 1, All British possessions in North America and adjacent islands, except Newfoundland and its dependencies, annexed to Canada by Imperial Order in Council of July 31. Oct. 21, Signing of the contract with the present Canadian Pacific Railway Co. for the completion of the Canadian Pacific railway.

1881. April 4, Second Dominion census. May 2, First sod turned of the Canadian Pacific railway as a company line.

1882. May 8, Provisional Districts of Assiniboia, Saskatchewan, Athabaska and Alberta formed. May 25, First meeting of the Royal Society of Canada. Aug. 23, Regina established as seat of government of Northwest Territories.

1883. Feb. 1, Opening of the fifth Dominion Parliament. September 5, Formation of the Methodist Church in Canada; United Conference.

1884. May 24, Sir Charles Tupper High Commissioner in London. Aug. 11, Order in Council, settling the boundary of Ontario and Manitoba.

1885. March 26, Outbreak of Riel's second rebellion in the Northwest. April 24, Engagement at Fish Creek. May 2, Engagement at Cut Knife. May 12, Taking of Batoche. May 16, Surrender of Riel. Aug. 24, First census of the Northwest Territories. Nov. 16, Execution of Riel.

1886. April 6, Incorporation of Vancouver. June 7, Archbishop Taschereau of Quebec made first Canadian cardinal. June 13, Vancouver destroyed by fire. June 28, First through train of the Canadian Pacific railway from Montreal to Vancouver. July 31, First quinquennial census of Manitoba.

1887. Interprovincial Conference at Quebec. April 4, First Intercolonial Conference in London. April 13, Opening of the sixth Dominion Parliament.

1888. Feb. 15, Signing of Fishery Treaty between United Kingdom and United States at Washington. Aug., Rejection of Fishery Treaty by United States Senate.

1890. March 31, The Manitoba School Act abolishes separate schools.

1891. April 5, Third Dominion census. April 29, Opening of the seventh Dominion Parliament. June 6, Death of Sir J. A. Macdonald. June 15, Sir John Abbott premier.

1892. Feb. 29, Washington Treaty, providing for arbitration of the Behring Sea Seal Fisheries question. July 22, Boundary convention between Canada and United States. Nov. 25, Sir John Thompson premier.

1893. April 4, First sitting of the Behring Sea Arbitration Court. Dec. 18, Archbishop Machray, of Rupert's Land, elected first Anglican primate of all Canada.

1894. June 28, Colonial Conference at Ottawa. Dec. 12, Death of Sir John Thompson at Windsor Castle. Dec. 21, (Sir) Mackenzie Bowell premier.

1895. Sept. 10, Opening of new Sault Ste Marie canal. Oct. 2, Proclamation naming the Ungava, Franklin, Mackenzie and Yukon districts of Northwest Territories.

1896. April 24, Sir Donald Smith (Lord Strathcona) High Commissioner in London. April 27, Sir Charles Tupper premier. July 11, (Sir) Wilfrid Laurier premier. Aug.

Gold discovered in the Klondyke. Aug. 19, Opening of the eighth Dominion Parliament.

1897. July, Third Colonial Conference in London. Dec. 17, Award of the Behring Sea Arbitration Court.

1898. June 13, The Yukon district established as a separate territory. Aug. 1, The British Preferential Tariff of Canada goes into force. Aug. 23, Meeting at Quebec of the Joint High Commission between Canada and the United States. Dec. 25, British Imperial penny (2 cent) postage introduced.

1899. Oct. 1, Mgr. Diomède Falconio arrived at Quebec as first permanent Apostolic delegate to Canada. Oct. 11, Beginning of the South African war. Oct. 29, First Canadian contingent leaves Quebec for South Africa.

1900. Feb. 27, Battle of Paardeberg. April 26, Great fire at Ottawa and Hull.

1901. Jan. 22, Death of Queen Victoria and accession of King Edward VII. Feb. 6, Opening of the ninth Dominion Parliament. April 1, Fourth Dominion census. Sept. 16-Oct. 21, Visit to Canada of the Duke and Duchess of Cornwall and York (King George V and Queen Mary).

1902. May 31, End of South African War; peace signed at Vereeniging. June 30, Meeting of fourth Colonial Conference in London.

1903. Jan. 24, Signing of the Alaska Boundary Convention. June 19, Incorporation of Regina. Oct. 20, Award of the Alaskan Boundary Commission.

1904. Feb. 1, Dominion Railway Commission established. April 19, Great fire in Toronto. Oct. 8, Incorporation of Edmonton.

1905. Jan. 11, Opening of the tenth Dominion Parliament. Sept. 1, Creation of the provinces of Alberta and Saskatchewan.

1906. University of Alberta founded. Oct. 8, Interprovincial Conference at Ottawa.

1907. April 15-May 14, Fifth Colonial Conference in London. New customs tariff, including introduction of intermediate tariff. Sept. 19, New commercial convention with France signed at Paris. Oct. 17, First message by wireless telegraphy between Canada and the United Kingdom. University of Saskatchewan founded.

1908. Jan. 2, Establishment of Ottawa branch of Royal Mint. June 21-23, Bicentenary of Bishop Laval celebrated at Quebec. July 20-31, Quebec tercentenary celebrations; visit to Quebec of Prince of Wales. Aug. 2, Great fire in Kootenay Valley, B.C. University of British Columbia founded.

1909. Jan. 11, Signing of International Boundary Waters Convention between Canada and United States. Jan. 20, Opening of 11th Dominion Parliament. May 19, Appointment of Canadian Commission of Conservation. July 28, Conference on Imperial Defence in London.

1910. May 6, Death of King Edward VII and accession of King George V. June 7, Death of Goldwin Smith. Sept. 7, North Atlantic Coast Fisheries Arbitration award of the Hague Tribunal. New trade agreements made with Germany, Belgium, Holland and Italy.

1911. May 23-June 20, Imperial Conference in London. June 1, Fifth Dominion census. July 11, Disastrous fires in Porcupine district. Sept. 21, General election. Oct. 10, (Sir) R. L. Borden premier. Oct. 11, Inauguration at Kitchener of Ontario hydro-electric power transmission system. Nov. 15, Opening of 12th Dominion Parliament.

1912. April 15, Loss of the steamship *Titanic;* Appointment of Dominions Royal Commission. May 15, Extension of the boundaries of Quebec, Ontario and Manitoba.

1913. April 10, Japanese Treaty Act assented to. June 2, Trade agreement with West Indies came into force.

1914. May 20, Loss of the steamship *Empress of Ireland.* Aug. 4, War with Germany; Aug. 12, with Austria-Hungary; Nov. 5, with Turkey. Aug. 18-22, Special war session of Canadian Parliament. Oct. 16, First Canadian contingent of over 33,000 troops lands at Plymouth, Eng.

1915. Feb., First Canadian contingent lands in France and proceeds to Flanders. April 22, Second battle of Ypres. April 24, Battle of St. Julien. May 20-26, Battle of Festubert. June 15, Battle of Givenchy.

1916. Jan. 12, Order in Council authorizing increase in number of Canadian troops to 500,000. Feb. 3, Destruction of the Houses of Parliament at Ottawa by fire. April 3-20, Battle of St. Eloi. June 1, Census of Prairie Provinces. June 1-3, Battle of Sanctuary Wood. July 1, Commencement of the battle of the Somme. Sept. 1, Cornerstone of new houses of Parliament laid by Duke of Connaught.

1917. Feb. 12-May 15, Imperial Conference. March 20-May 2, Meetings in London of Imperial War Cabinet. March 21-April 27, Imperial War Conference. April 6, United States declares war against Germany. April 9, Capture of Vimy Ridge. June 21, Appointment of Food Controller. Aug. 15, Battle of Loos,

capture of Hill 70. Aug. 29, Passing of Military Service Act. Sept. 20, Completion of Quebec bridge. Sept. 20, Parliamentary franchise extended to women. Oct. 26-Nov. 10, Battle of Passchendaele. Dec. 6, Disastrous explosion at Halifax, N.S. Dec. 17, General election and Union Government sustained.

1918. Mar. 18, Opening of the first session of 13th Parliament. Mar. 31, Germans launch critical offensive on west front. Mar.-April, Second battle of the Somme. April 17, Secret session of Parliament. June-July, Prime Minister and colleagues attend Imperial War Conference in London. July 18, Allies assume successful offensive on west front. Aug. 12, Battle of Amiens. Aug. 26-28, Capture of Monchy le Preux. Sept. 2-4, Breaking of Drocourt-Quéant line. Sept. 16, Austrian peace note. Sept. 27-29, Capture of Bourlon Wood. Sept. 30, Bulgaria surrenders and signs armistice. Oct. 1-9, Capture of Cambrai. Oct., Serious influenza epidemic. Oct. 6, First German peace note. Oct. 20, Capture of Denain. Oct. 25-Nov. 2, Capture of Valenciennes. Oct. 31, Turkey surrenders and signs armistice. Nov. 4, Austria-Hungary surrenders and signs armistice. Nov. 11, Capture of Mons. Germany surrenders and signs armistice.

1919. Feb. 17, Death of Sir Wilfrid Laurier. Feb. 20-July 7, Second session of thirteenth Parliament. May 1-June 15, General strike at Winnipeg and other western cities. June 28, Signing at Versailles of Peace Treaty and Protocol. Aug. 15, Arrival of H. R. H. the Prince of Wales for official tour in Canada. Aug. 22, Formal opening of Quebec bridge by H. R. H. the Prince of Wales. Sept. 1, H. R. H. the Prince of Wales lays foundation stone of tower of new Parliament Buildings at Ottawa. Sept. 1-Nov. 10, Third or special peace session of 13th Parliament of Canada. Dec. 20, Organization of "Canadian National Railways" by Order in Council.

1920. Jan. 10, Ratifications of the Treaty of Versailles. Feb. 19, Shareholders ratify agreement for sale of the Grand Trunk railway to the Dominion Government. Feb. 26-July 1, Fourth session of the thirteenth Parliament of Canada. May 31-June 18, Trade Conference at Ottawa between Dominion and West Indian Governments. July 10, Sir Robert Borden is succeeded by Right Hon. Arthur Meighen as Premier. July 16, Ratifications of the Treaty of St. Germain-en-Laye. Aug. 9, Ratifications of the Treaty of Neuilly-sur-Seine. Oct. 20, Prohibition defeated in British Columbia. Oct. 25, Referendum *re* complete prohibition of the liquor traffic is carried in Nova Scotia, Manitoba, Saskatchewan and Alberta. Nov. 15, First meeting of League of Nations Assembly begins at Geneva, Switzerland.

1921. Feb. 14-June 4, Fifth session of thirteenth Parliament of Canada. April 18, Ontario votes for prohibition of the manufacture, importation and sale of alcoholic liquors. May 1, Government control of liquor traffic becomes effective in Quebec. May 10, Preferential tariff arrangement with British West Indies becomes effective. June 1, Sixth Dominion census. June 20-Aug. 5, Imperial Conference. Sept. 5-Oct. 5, Second meeting of Assembly of League of Nations at Geneva. Nov. 11, Opening of conference on limitation of armament at Washington. Dec. 6, Dominion general election. Dec. 29, New Ministry (Liberal), with Right Hon. W. L. Mackenzie King as premier, is sworn in.

1922. Feb. 1, Arms Conference at Washington approves 5-power treaty, limiting capital fighting ships and pledging against unrestricted submarine warfare and use of poison gas. Mar. 8-June 28, First session of fourteenth Parliament of Canada. April 10, General Economic Conference opened at Genoa. July 13, Conference between Canada and the United States *re* perpetuating the Rush-Bagot Treaty regarding armament on the Great Lakes. Aug. 7, Allies' Conference on war debts and reparations opened at London. Sept. 4, Third assembly of League of Nations opened at Geneva. Oct. 10, Mudania Armistice signed by Britain, France and Turkey. Oct. 14, Fourth International Labour Conference at Geneva. Nov. 20, Turkish Peace Conference opened at Lausanne. Dec. 9, Reparations Conference opened at London. Dec. 15, Signing of trade agreement between Canada and France.

1923. Jan. 4, Signing of trade agreement between Canada and Italy. Jan. 31-June 30, Second session of fourteenth Parliament of Canada. April 1, Removal of British embargo on Canadian cattle effective. June 22, Manitoba votes for government control of the sale of liquor in the province. Sept. 3, Fourth session of League of Nations at Geneva. Oct. 1, Imperial Conference and Imperial Economic Conference at London. Nov. 5, Alberta votes for government control of the liquor traffic.

1924. Feb. 28-July 19. Third session of the fourteenth Parliament of Canada. April 23, British Empire Exhibition opened by King George at Wembley, England, with the Prince of Wales as President. July 3, Trade agreement between Canada and Belgium signed at Ottawa. July 16, Saskatchewan votes in favour of government control of the liquor traffic. Aug. 6-Aug. 16, Meeting of the British Association for the Advancement of Science at Toronto. Aug. 11-16, Meeting of International Mathematical Congress at Toronto. Sept. 1, Opening of fifth Session of League of Nations at Geneva, Switzerland. Oct. 23, Plebiscite on liquor question in Ontario; reduced majority for continuance of prohibition regulations.

1925. Feb. 5-June 27, Fourth session of fourteenth Parliament of Canada. June 2, Provincial general election in Saskatchewan; Liberal party under Hon. Mr. Dunning returned to Office. June 10, Inauguration of the United Church of Canada. June 25, Provincial general election in Nova Scotia; Conservative party under Hon. E. N. Rhodes returned to office. July 6, Signing at Ottawa of trade agreement between Canada and the British West Indies. Aug. 10, Provincial general election in New Brunswick; Conservative party under Hon. J. B. M. Baxter returned to office. Aug. 10, Resumption of work in Nova Scotia coal mines after 5 months' strike. Sept. 5, Fourteenth Parliament dissolved. Oct. 29, Dominion general elections. Nov. 20, Death of Queen Alexandra.

1926. Jan. 7-July 1, First session of fifteenth Parliament of Canada. April 15, Budget Speech; reductions of income and other taxes announced. June 28, Resignation of Rt. Hon. W. L. Mackenzie King, Prime Minister, and his Cabinet. Provincial general elections in Alberta; United Farmers under Premier Brownlee retain office. June 29, Rt. Hon. Arthur Meighen becomes Prime Minister. July 1, Two-cent domestic rate of postage restored. July 2, Fifteenth Parliament dissolved. July 13, Composition of Mr. Meighen's Cabinet announced (see p. 77 of the 1927-28 Year Book). Sept. 14, Dominion general elections. Sept. 25, Rt. Hon. W. L. Mackenzie King becomes Prime Minister (for composition of Cabinet see p. 65). Oct. 19-Nov. 23, Imperial Conference in London. Nov. 26, Hon. C. Vincent Massey is appointed Envoy Extraordinary and Minister Plenipotentiary to the United States. Dec. 1, General election in Ontario; Ferguson Government retains office. Dec. 9, Opening of first session of sixteenth Parliament.

1927. Feb. 8-April 14, Continuation of first session of the sixteenth Parliament of Canada. Feb. 17, Budget speech; reductions of income tax, sales tax and stamp tax on cheques announced. May 16, General election in Quebec; the Liberal Government of Hon. L. A. Taschereau sustained. June 1, Hon. Wm. Phillips, first U.S. Minister to Canada, reaches Ottawa. June 25, General election in Prince Edward Island; the Conservative Government of Hon. J. D. Stewart defeated. June 28, General election in Manitoba; the Government of Hon. John Bracken sustained. July 1-3, Diamond Jubilee of Confederation celebrated throughout the Dominion. July 30, the Prince of Wales, Prince George, the Rt. Hon. Stanley Baldwin and party, arrive at Quebec on a visit to Canada. Sept., Canada elected as a non-permanent member of the Council of the League of Nations at Geneva. Nov., Dominion-Provincial Conference on the relations between the Dominion and the provinces.

1928. Jan. 26-June 11, Second session of the sixteenth Parliament of Canada. Jan. 30, President Cosgrove of the Irish Free State visits Ottawa. Death of Earl Haig. Feb. 10, Fire in Hollinger mine. Feb. 15, Death of the Earl of Oxford and Asquith. Feb. 16, Budget speech announces reductions in taxation. April 25, Sir Wm. H. Clark appointed first British High Commissioner to Canada. May 31, Legislative Council of Nova Scotia ceases to exist, leaving Quebec as the only province with a bi-cameral Legislature. July 18, General elections in British Columbia; Conservatives successful. Aug. 24-Oct. 5, Empire Parliamentary Association visits Canada. Oct. 1, General elections in Nova Scotia; Conservatives retain power.

CHAPTER III.—CONSTITUTION AND GOVERNMENT.

The Dominion of Canada is the largest in area and the most populous of the great self-governing Dominions of the British Empire, which also include the Irish Free State (Saorstat Eireann), the Commonwealth of Australia, the Union of South Africa, the Dominion of New Zealand, the island colony of Newfoundland (with the Labrador coast), the colony of Southern Rhodesia, and the island of Malta. These Dominions enjoy responsible government of the British type, administered by executive Councils (or Cabinets), acting as advisors to the representative of the Sovereign, themselves responsible to and possessing the confidence of the representatives elected to Parliament by the people, and giving place to other persons more acceptable to Parliament whenever that confidence is shown to have ceased to exist. The Imperial Conference of 1926 defined the Dominions as "autonomous Communities within the British Empire, equal in status, in no way subordinate one to another in any aspect of their domestic or foreign affairs, though united by a common allegiance to the Crown, and freely associated as members of the British Commonwealth of Nations". The Conference further laid down that, as a consequence of this equality of status, the Governor-General of a Dominion "is the representative of the Crown, holding in all essential respects the same position in relation to the administration of public affairs in the Dominion as is held by His Majesty the King in Great Britain", and that "it is the right of the Government of each Dominion to advise the Crown in all matters relating to its own affairs". The Conference also recognized certain treaty-making rights as appertaining to the Dominions.

Of these Dominions, Canada, Australia and South Africa extend over enormous areas of territory, the first two approximating in area to Europe, and including great provinces or states larger than most of its Great Powers. Each province or state has its own problems and its own point of view, so that local Parliaments for each section, as well as the central Parliament for the whole country, are required. These local Parliaments, established when transportation and communication were more difficult and expensive than at present, were chronologically prior to the central body, to which on its formation they either resigned certain powers, as in the case of Australia, or surrendered all their powers with certain specified exceptions, as in Canada and South Africa. Of such local Parliaments, Canada at the present time has nine, Australia six, and South Africa four.

Besides the Dominions above enumerated, the great Empire of India has internationally been accepted as a member of the League of Nations, and in its internal administration has been placed on the road, formerly traversed by the Dominions which are now fully self-governing, towards responsible government. Indeed, the whole evolution of the Empire, throughout all its parts which are more than mere fortresses like Gibraltar or trading stations like Hong Kong, is in the direction of responsible government, to be attained in the dependencies as it has been in what used to be called the colonies, by the gradual extension of self-government in proportion to the growing capacities of their respective populations. It is the recognized aim of British administrators, by the extension of educational facilities and by just administration, to develop these capacities to the utmost, so that in the dependencies, as well as in the Dominions and in the Mother Country, the constitutional history of the future may be a record of "freedom slowly broadening down from precedent to precedent".

PART I.—CONSTITUTION AND GENERAL GOVERNMENT OF CANADA.

Under the above heading a brief historical and descriptive account of the evolution of the general government of Canada was given on pages 89-100 of the Canada Year Book, 1922-23, to which the reader is referred.

PART II.—PROVINCIAL AND LOCAL GOVERNMENT IN CANADA.

Under the heading "Provincial and Local Government in Canada", a brief account of the government of each of the provinces of Canada and of its municipal institutions and judicial organization was published on pages 101-115 of the 1922-23 edition of the Year Book. Considerations of space prevent republication in this edition.

PART III.—PARLIAMENTARY REPRESENTATION IN CANADA.

Section 1.—Dominion Parliament.

The Dominion Parliament is composed of the King, represented by the Governor-General, the Senate and the House of Commons. The Governor-General is appointed by the King. Members of the Senate are appointed for life by the Governor-General in Council and members of the House of Commons are elected by the people. As a result of the working out of the democratic principle, the part played by the King's representative and the Upper Chamber of Parliament in the country's legislation has been, in Canada as in the Mother Country, a steadily decreasing one, the chief responsibilities involved in legislation being assumed by the House of Commons.

Subsection 1.—The Governor-General of Canada.

The Governor-General is appointed by the King as his representative in Canada, usually for a term of five years, with a salary fixed at £10,000 sterling per annum and forming a charge against the consolidated revenue of the country. The Governor-General is bound by the terms of his commission and can exercise only such authority as is expressly entrusted to him. He acts under the advice of his Ministry, which is responsible to Parliament, and, as the acting head of the executive, summons, prorogues and dissolves Parliament and assents to or reserves bills. In the discharge of these and other executive duties, he acts entirely by and with the advice of his Ministry (the Governor-General in Council). The royal prerogative of mercy in capital cases, formerly exercised on the Governor-General's own judgment and responsibility, is now exercised pursuant to the advice of the Ministry. The practice whereby the Governor-General served as the medium of communication between the Canadian and the British Governments has been given up; since July 1, 1927, direct communication between His Majesty's Government in Canada and His Majesty's Government in Great Britain has been instituted.

A list of the Governors-General from the time of Confederation, with the dates of their appointment and assumption of office, is given in Table 1.

1.—Governors-General of Canada, 1867-1928.

Names.	Date of Appointment.	Date of Assumption of Office.
Viscount Monck, G.C.M.G.	June 1, 1867	July 1, 1867
Lord Lisgar, G.C.M.G.	Dec. 29, 1868	Feb. 2, 1869
The Earl of Dufferin, K.P., K.C.B., G.C.M.G.	May 22, 1872	June 25, 1872
The Marquis of Lorne, K.T., G.C.M.G.	Oct. 5, 1878	Nov. 25, 1878
The Marquis of Lansdowne, G.C.M.G.	Aug. 18, 1883	Oct. 23, 1883
Lord Stanley of Preston, G.C.B.	May 1, 1888	June 11, 1888
The Earl of Aberdeen, K.T., G.C.M.G.	May 22, 1893	Sept. 18, 1893
The Earl of Minto, G.C.M.G.	July 30, 1898	Nov. 12, 1898
The Earl Grey, G.C.M.G.	Sept. 26, 1904	Dec. 10, 1904
Field Marshal H.R.H. the Duke of Connaught, K.G.	Mar. 21, 1911	Oct. 13, 1911
The Duke of Devonshire, K.G., G.C.M.G., G.C.V.O.	Aug. 19, 1916	Nov. 11, 1916
General the Lord Byng of Vimy, G.C.B., G.C.M.G., M.V.O.	Aug. 2, 1921	Aug. 11, 1921
Lord Willingdon of Ratton, G.C.S.I., G.C.I.E., G.B.E.	Aug. 5, 1926	Oct. 2, 1926

Subsection 2.—The Ministry.

A system of government based upon the British, by which a Cabinet or Ministry (composed of members of the House of Commons or the Senate), responsible to Parliament, holds office while it enjoys the confidence of the people's representatives is found in Canada. The Cabinet is actually a committee of the King's Privy Council for Canada. Without enlarging upon the features of the system, it may be sufficient to note that the Cabinet is responsible to the House of Commons, and following established precedent, resigns office when it becomes evident that it no longer holds the confidence of the people's representatives. Members of the Cabinet are chosen by the Prime Minister; each of them generally assumes charge of one of the various Departments of the Government, although one Minister may hold two portfolios at the same time, while other members may be without portfolio.

The Prime Ministers since Confederation and the dates of their tenures of office, together with the members of the fourteenth Ministry, as on Jan. 1, 1929, are given in Table 2.

2.—Ministries since Confederation.

NOTE.—A complete list of the members of Dominion Ministries from Confederation to 1913 appeared in the Year Book of 1912, pp. 422-429. A list of the members of Dominion Ministries from 1911 to 1919 appeared in the Year Book of 1920, pp. 651-653. A list of the members of the twelfth and thirteenth Ministries appeared on pp. 76-77 of the 1927-1928 Year Book.

1. Rt. Hon. Sir John A. Macdonald, Premier. From July 1, 1867 to Nov. 6, 1873.
2. Hon. Alexander Mackenzie, Premier. From Nov. 7, 1873 to Oct. 16, 1878.
3. Rt. Hon. Sir John A. Macdonald, Premier. From Oct. 17, 1878 to June 6, 1891.
4. Hon. Sir John J. C. Abbott, Premier. From June 16, 1891 to Dec. 5, 1892.
5. Hon. Sir John S. D. Thompson, Premier. From Dec. 5, 1892 to Dec. 12, 1894.
6. Hon. Sir Mackenzie Bowell, Premier. From Dec. 21, 1894 to April 27, 1896.
7. Hon. Sir Charles Tupper, Premier. From May 1, 1896 to July 8, 1896.
8. Rt. Hon. Sir Wilfrid Laurier, Premier. From July 11, 1896 to Oct. 6, 1911.
9. Rt. Hon. Sir Robert L. Borden, Premier. (Conservative Administration). From Oct. 10, 1911 to Oct. 12, 1917.
10. Rt. Hon. Sir Robert L. Borden, Premier. (Unionist Administration). From Oct. 12, 1917 to July 10, 1920.
11. Rt. Hon. Arthur Meighen, Premier. (Unionist—"National Liberal and Conservative Party"). From July 10, 1920 to Dec. 29, 1921.
12. Rt. Hon. William Lyon Mackenzie King, Premier. From Dec. 29, 1921 to June 28, 1926.
13. Rt. Hon. Arthur Meighen, Premier. From June 29, 1926 to Sept. 25, 1926.
14. Rt. Hon. William Lyon Mackenzie King, Premier. From Sept. 25, 1926.

2.—Ministries since Confederation —concluded.

FOURTEENTH DOMINION MINISTRY.

(According to precedence as at the formation of the Cabinet.)

Office.	Occupant.	Date of Appointment.
'rime Minister, President of the Privy Council and Secretary of State for External Affairs	Right Hon. William Lyon Mackenzie King	Sept. 25, 1926
Iember of the Administration as Minister without Portfolio	Hon. Raoul Dandurand	Sept. 25, 1926
linister of Justice and Attorney-General	Hon. Ernest Lapointe	Sept. 25, 1926
linister of Finance and Receiver-General	Hon. James A. Robb	Sept. 25, 1926
linister of the Interior, Minister of Mines and Superintendent-General of Indian Affairs	Hon. Charles Stewart	Sept. 25, 1926
linister of Agriculture	Hon. William R. Motherwell	Sept. 25, 1926
linister of Pensions and National Health	Hon. James H. King	Sept. 25, 1926
linister of Marine and Fisheries	Hon. Pierre J. A. Cardin	Sept. 25, 1926
linister of Railways and Canals	Hon. Charles A. Dunning	Sept. 25, 1926
linister of Public Works	Hon. John C. Elliott	Sept. 25, 1926
olicitor-General	Hon. Lucien Cannon	Sept. 25, 1926
linister of National Defence	Hon. J. L. Ralston	Oct. 7, 1926
'ostmaster-General	Hon. Peter J. Veniot	Sept. 25, 1926
linister of National Revenue	Hon. William D. Euler	Sept. 25, 1926
ecretary of State	Hon. Fernand Rinfret	Sept. 25, 1926
linister of Trade and Commerce	Hon. James Malcolm	Sept. 25, 1926
linister of Immigration and Colonization	Hon. Robert Forke	Sept. 25, 1926
linister of Labour	Hon. Peter Heenan	Sept. 25, 1926

In Table 3 are given the dates of the opening and prorogation of the sessions f the various Dominion Parliaments from 1867 to 1929.

3.—Duration and Sessions of Dominion Parliaments, 1867-1929.

Number of Parliament.	Session.	Date of Opening.	Date of Prorogation.	Days of session.	Elections, writs returnable, dissolutions and lengths of Parliaments.[7]
st Parliament	1st	Nov. 1, 1867	May 22, 1868	118[1]	
	2nd	April 15, 1869	June 22, 1869	69	Aug., Sept., 1867.[3]
	3rd	Feb. 15, 1870	May 12, 1870	87	Sept. 24, 1867.[4]
	4th	Feb. 15, 1871	April 14, 1871	59	July 8, 1872.[5]
	5th	April 11, 1872	June 14, 1872	65	4 y., 9 m., 15 d.[6]
nd Parliament	1st	Mar. 5, 1873	Aug. 13, 1873	81[2]	July, Aug., Sept., 1872.[3]
	2nd	Oct. 23, 1873	Nov. 7, 1873	16	Sept. 3, 1872.[4]
					Jan. 2, 1874.[5]
	1st	Mar. 26, 1874	May 26, 1874	62	1 y., 4 m., 0 d.[6]
	2nd	Feb. 4, 1875	April 8, 1875	64	Jan. 22, 1874.[3]
rd Parliament	3rd	Feb. 10, 1876	April 12, 1876	63	Feb. 21, 1874.[4]
	4th	Feb. 8, 1877	April 28, 1877	80	Aug. 17, 1878.[5]
	5th	Feb. 7, 1878	May 10, 1878	93	4 y., 5 m., 25 d.[6]
	1st	Feb. 13, 1879	May 15, 1879	92	
h Parliament	2nd	Feb. 12, 1880	May 7, 1880	86	Sept. 17, 1878.[3]
	3rd	Dec. 9, 1880	Mar. 21, 1881	103	Nov. 21, 1878.[4]
	4th	Feb. 9, 1882	May 17, 1882	98	May 18, 1882.[5]
	1st	Feb. 8, 1883	May 25, 1883	107	3 y., 5 m. 28 d.[6]
h Parliament	2nd	Jan. 17, 1884	April 19, 1884	94	June 20, 1882.[3]
	3rd	Jan. 29, 1885	July 20, 1885	173	Aug. 7, 1882.[4]
	4th	Feb. 25, 1886	June 2, 1886	98	Jan. 15, 1887.[5]
	1st	April 13, 1887	June 23, 1887	72	4 y. 5 m., 10 d.[6]
h Parliament	2nd	Feb. 23, 1888	May 22, 1888	90	Feb. 22, 1887.[3]
	3rd	Jan. 31, 1889	May 2, 1889	92	April 7, 1887.[4]
	4th	Jan. 16, 1890	May 16, 1890	121	Feb. 3, 1891.[5]
	1st	April 29, 1891	Sept. 30, 1891	155	3 y., 9 m., 27 d.[6]
	2nd	Feb. 25, 1892	July 9, 1892	136	
h Parliament	3rd	Jan. 26, 1893	April 1, 1893	66	Mar. 5, 1891.[3]
	4th	Mar. 15, 1894	July 23, 1894	131	April 25, 1891.[4]
	5th	April 18, 1895	July 22, 1895	96	April 24, 1896.[5]
	6th	Jan. 2, 1896	April 23, 1896	111	5 y., 0 m., 0 d.[6]

[1]Adjourned from 21 December, 1867, to March 12, 1868, to allow the local Legislatures to meet. djourned 23 May till 13 August. [3]Period of general elections. [4]Writs returnable. [5]Dissolution of arliament. [6]Duration of Parliament in years, months and days. The life of a Parliament is counted om the date of return of election writs to the date of dissolution, both days inclusive. [7]The ordinary gal limit of duration for each Parliament is five years.

3.—Duration and Sessions of Dominion Parliaments, 1867-1929—concluded.

Number of Parliament.	Session.	Date of Opening.	Date of Prorogation.	Days of session.	Elections, writs returnable, dissolutions and lengths of Parliaments.[10]
8th Parliament	1st	Aug. 19, 1896	Oct. 5, 1896	48	
	2nd	Mar. 25, 1897	June 29, 1897	97	June 23, 1896.[3]
	3rd	Feb. 3, 1898	June 13, 1898	131	July 13, 1896.[4]
	4th	Mar. 16, 1899	Aug. 11, 1899	149	Oct. 9, 1900.[5]
	5th	Feb. 1, 1900	July 18, 1900	168	4 y., 2 m., 26 d.[6]
9th Parliament	1st	Feb. 6, 1901	May 23, 1901	107	Nov. 7, 1900.[3]
	2nd	Feb. 13, 1902	May 15, 1902	90	Dec. 5, 1900.[4]
	3rd	Mar. 12, 1903	Oct. 24, 1903	227	Sept. 29, 1904.[5]
	4th	Mar. 10, 1904	Aug. 10, 1904	154	3 y., 9 m., 26 d.[6]
10th Parliament	1st	Jan. 11, 1905	July 20, 1905	191	Nov. 3, 1904.[3]
	2nd	Mar. 8, 1906	July 13, 1906	128	Dec. 15, 1904.[4]
	3rd	Nov. 22, 1906	April 27, 1907	157	Sept. 17, 1908.[5]
	4th	Nov. 28, 1907	July 20, 1908	236	3 y., 9 m., 4 d.[6]
11th Parliament	1st	Jan. 20, 1909	May 19, 1909	120	Oct. 26, 1908.[3]
	2nd	Nov. 11, 1909	May 4, 1910	175	Dec. 3, 1908.[4]
	3rd	Nov. 17, 1910	July 29, 1911	196[1]	July 29, 1911.[5]
12th Parliament	1st	Nov. 15, 1911	April 1, 1912	139	2 y., 7 m., 28 d.[6]
	2nd	Nov. 21, 1912	June 6, 1913	173[2]	
	3rd	Jan. 15, 1914	June 12, 1914	148	Sept. 21, 1911.[3]
	4th	Aug. 18, 1914	Aug. 22, 1914	5	Oct. 7, 1911.[4]
	5th	Feb. 4, 1915	April 15, 1915	71	Oct. 6, 1917.[5]
	6th	Jan. 12, 1916	May 18, 1916	127	6 y., 0 m., 0 d.[6]
	7th	Jan. 18, 1917	Sept. 20, 1917	207[7]	
13th Parliament	1st	Mar. 18, 1918	May 24, 1918	68	
	2nd	Feb. 20, 1919	July 7, 1919	138	Dec. 17, 1917.[3]
	3rd	Sept. 1, 1919	Nov. 10, 1919	71	Feb. 27, 1918.[4]
	4th	Feb. 26, 1920	July 1, 1920	127	Oct. 4, 1921.[5]
	5th	Feb. 14, 1921	June 4, 1921	111	3 y., 7 m., 6 d.[6]
14th Parliament	1st	Mar. 8, 1922	June 28, 1922	113	Dec. 6, 1921.[3]
	2nd	Jan. 31, 1923	June 30, 1923	151	Jan. 14, 1922.[4]
	3rd	Feb. 28, 1924	July 19, 1924	143	Sept. 5, 1925.[5]
	4th	Feb. 5, 1925	June 27, 1925	143	3 y., 7 m., 26 d.[6]
15th Parliament	1st	Jan. 7, 1926	July 2, 1926	177[8]	Oct. 29, 1925.[3] Dec. 7, 1925.[4] July 2, 1926.[5] 208 d.[6]
16th Parliament	1st	Dec. 9, 1926	April 14, 1927	73[9]	Sept. 14, 1926.[3]
	2nd	Jan. 26, 1928	June 11, 1928	138	Nov. 2, 1926.[4]
	3rd	Feb. 7, 1929			

[1]Not including days (59) of adjournment from May 19 to July 18. [2]Not including days (25) adjournment from Dec. 19, 1912, to Jan. 14, 1913. [3]Period of general elections. [4]Writs returnab [5]Dissolution of Parliament. [6]Duration of Parliament in years, months and days. The life of a Parliam is counted from the date of return of election writs to the date of dissolution, both days inclusive. [7]N including days (39) of adjournment from Feb. 7 to April 19, 1917. [8]Including days (13) of adjournm from Mar. 3 to Mar. 15. [9]Not including days (54) of adjournment from Dec. 15 to Feb. 8. [10]The ordin legal limit of duration for each Parliament is five years.

A brief *résumé* of the history of parliamentary representation follows. Atte tion may be drawn to the growth in the number of members of both the Senate a the House of Commons since Confederation and to the greatly increased unit representation in the Lower House.

Subsection 3.—The Senate.

The British North America Act, 1867, provides in sections 21 and 22 th "the Senate shall consist of seventy-two members, who shall be styled Senato In relation to the constitution of the Senate, Canada shall be deemed to con of three Divisions,—(1) Ontario; (2) Quebec; (3) The Maritime Provinces, N Scotia and New Brunswick; which three divisions shall be equally represented the Senate as follows:—Ontario by twenty-four Senators; Quebec by twenty-f Senators; and the Maritime Provinces by twenty-four Senators, twelve ther representing New Brunswick and twelve thereof representing Nova Scotia. In

ase of Quebec, each of the twenty-four Senators representing the province shall be ppointed for one of the electoral divisions of Lower Canada specified in schedule A to Chapter I of the Consolidated Statutes of Canada". Further, under section 47 of the same Act, it is provided that "in case of the admission to Confederation f Newfoundland or Prince Edward Island, ... each shall be entitled o a representation in the Senate of four members". "Prince Edward Island when dmitted shall be deemed to be comprised in the third of the three divisions into vhich Canada is divided by this Act" and on its admission "the representation of Nova Scotia and New Brunswick shall, as vacancies occur, be reduced from twelve o ten members respectively". In case of the admission of Newfoundland, the ormal membership of the Senate of 72 members was to be increased to 76, while he maximum number (78, sec. 28) was set at 82, sec. 26 containing a provision or the appointment of three or six additional members in certain cases, to represent qually the three divisions of Canada.

By 33 Vict., c. 3, an Act to establish and provide for the government of the province of Manitoba, passed in 1870, the newly formed province was given repre- entation of two members in the Senate, provision being made at the same time or increases in representation to three and four on increases of population, according o the decennial census, to 50,000 and 75,000 respectively. In the following year, British Columbia, on being admitted to the Union by an Imperial Order in Council f May 16, 1871, was given representation by three Senators. Two years later, vhen Prince Edward Island was admitted to Confederation by an Imperial Order n Council of June 26, 1873, it was granted representation in the Senate of four nembers under the terms of the British North America Act, as cited above. Thus, n 1873, the seven provinces of Ontario, Quebec, Nova Scotia, New Brunswick, Manitoba, British Columbia and Prince Edward Island were represented by a otal of 77 members in the Senate, their individual representation at the time eing 24, 24, 10, 10, 2, 3 and 4 members respectively.

In 1882, following the 1881 census and an increase of population in Manitoba o 62,260 persons, the representation of this province was increased to three members nder authority of the Manitoba Act, 1870. Later, by 50-51 Vict., c. 38, an Act f 1887, the representation of the Northwest Territories in the Senate was fixed t two members. A subsequent increase resulted from the growth of population n Manitoba to 152,506, as shown by the census of 1891, the province being granted fourth senator under the terms of the Manitoba Act of 1870. An Act passed n the session of 1903, 3 Edw. VII, c. 42, provided for an increase in the representation f the Northwest Territories from two to four members, bringing the total repre- ntation at this date to 83 members.

On the establishment of the provinces of Alberta and Saskatchewan out of the ormer Northwest Territories in 1905, under 4-5 Edw. VII, cc. 3 and 42, provision as made for their representation in the Senate by 4 members each, which might e increased by Parliament to 6 on the completion of the next decennial census. his change in representation brought the membership of the Upper Chamber to total of 87.

In 1915, by an amendment to the British North America Act (5-6 Geo. V, 45), an important change was made with regard to the constitution of the Senate. he number of divisions provided for by section 22 of the original Act was increased om three to four, the fourth comprising the four western provinces of Manitoba, askatchewan, Alberta and British Columbia. Each of these provinces was to e represented by 6 members under the Act, the division being thus represented

by 24 members and placed on an equality with the others with respect to membership. A corresponding change was made in the number of additional senators provided for by the original British North America Act, by substituting increases of four or eight members for the three or six cited in section 26 of the Act of 1867. Normal representation, therefore, is at present fixed at 96, which number may be increased if necessary to 100 or to a maximum of 104.

The entry of Newfoundland to the Union is still provided for by the above Act, sub-section 6 of sec. 1 of which sets out its representation as six members instead of the four granted by the Act of 1867. Should Newfoundland be admitted to the Dominion, the normal number of senators is to be 102 with a maximum of 110.

In Table **4** the growth of membership in the Senate is shown by divisions and provinces from 1867 to 1915, since when no increase has taken place. The names and addresses of the senators from each province are given as at Feb. 1, 1929, in Table **5**.

4.—Growth of Representation in the Senate, 1867-1929.

Provinces.	1867.	1870.	1871.	1873.	1882.	1887.	1892.	1903.	1905.	1915-1929.
(1) Ontario	24	24	24	24	24	24	24	24	24	24
(2) Quebec	24	24	24	24	24	24	24	24	24	24
(3) Maritime Provinces	24	24	24	24	24	24	24	24	24	24
Nova Scotia	12	12	12	10	10	10	10	10	10	10
New Brunswick	12	12	12	10	10	10	10	10	10	10
Prince Edward Island	–	–	–	4	4	4	4	4	4	4
(4) Western Provinces	–	2	5	5	6	8	9	11	15	24
Manitoba	–	2	2	2	3	3	4	4	4	6
British Columbia	–	–	3	3	3	3	3	3	3	6
Saskatchewan	–	–	–	–	–	2	2	4	4	6
Alberta	–	–	–	–	–				4	6
Total	**72**	**74**	**77**	**77**	**78**	**80**	**81**	**83**	**87**	**96**

5.—Representation in the Senate of Canada, by Provinces, as at Feb. 1, 1929.

Names of Senators.	Post Office Addresses.
Prince Edward Island (4 senators)—	
Prowse, Benj. C.	Charlottetown.
McLean, John	Souris.
Hughes, James J	Souris.
MacArthur, Creelman	Summerside.
Nova Scotia (10 senators)—	
Farrell, Edward M.	Liverpool.
Curry, Nathaniel	Amherst.
Girroir, E. L.	Antigonish.
McLennan, John S.	Sydney.
Tanner, C. E.	Pictou.
Stanfield, John	Truro.
McCormick, John	Sydney Mines.
Martin, Peter	Halifax.
Hatfield, Paul L.	Yarmouth.
Logan, H. J.	Amherst.
New Brunswick (10 senators)—	
Poirier, Pascal	Shediac.
Daniel, J. W.	Saint John.
Bourque, T. J.	Richibucto.
New Brunswick—concluded.	
Todd, Irving R.	Milltown.
McDonald, J. A.	Shediac.
Black, Frank B.	Sackville.
Turgeon, Onésiphore	Bathurst.
Robinson, C. W.	Moncton.
Copp, A. B., P.C.	Sackville.
Foster, W. E.	Saint John
Quebec (24 senators)[1]—	
Dandurand, R., P.C.	Montreal.
Casgrain, J. P. B.	Montreal.
Béique, F. L., P.C.	Montreal.
Legris, J. H.	Louiseville.
Tessier, Jules	Quebec.
Dessaulles, G. C.	St. Hyacinthe.
Lavergne, Louis	Arthabaska.
Wilson, J. M.	Montreal.
Pope, Rufus H.	Cookshire.
Beaubien, C. P.	Montreal.
L'Esperance, D. O.	Quebec.
Foster, G. G.	Montreal.
White, R. S.	Montreal.

[1] Two vacancies.

5.—Representation in the Senate of Canada, by Provinces, as at Feb. 1, 1929—concluded.

Names of Senators.	Post Office Addresses.	Names of Senators.	Post Office Addresses.
Quebec—concluded.			
Blondin, P. E., P.C.	Montreal.	**Manitoba** (6 senators)—	
Chapais, Thomas	Quebec.	Watson, Robt	Portage la Prairie.
Webster, L. C	Montreal.	Sharpe, W. H	Manitou.
Béland, H. S., P.C.	Ottawa, Ont.	McMeans, L	Winnipeg.
Bureau, Jacques, P.C.	Three Rivers.	Bénard, Aimé	Winnipeg.
McDougald, Wilfrid L.	Montreal.	Schaffner, F. L.	Winnipeg.
Raymond, Donat	Montreal.	Molloy, J. P.	Morris.
Paradis, Philippe J.	Quebec.		
Laflamme, Napoléon K.	Montreal.		
		Saskatchewan (6 senators)—	
Ontario (24 senators)—		Ross, James H.	Moose Jaw.
Belcourt, N. A., P.C.	Ottawa.	Laird, H. W.	Regina.
Gordon, Geo.	North Bay.	Willoughby, W. B.	Moose Jaw.
Smith, E. D.	Winona.	Turriff, J. G.	Ottawa, Ont.
Donnelly, J. J.	Pinkerton.	Calder, J. A., P.C.	Regina.
Lynch-Staunton, G.	Hamilton.	Gillis, A. B.	Whitewood.
Robertson, G. D., P.C.	Welland.		
Fisher, J. H.	Paris.		
White, G. V.	Pembroke.	**Alberta** (6 senators)—	
Reid, J. D., P.C.	Prescott.	Michener, Edward	Red Deer.
Foster, Sir G. E., P.C.	Ottawa.	Harmer, Wm. J.	Edmonton.
Kemp, Sir A. E., P.C.	Toronto.	Griesbach, W. A.	Edmonton.
Macdonell, A. H.	Toronto.	Lessard, P. E.	Edmonton.
Hardy, A. C.	Brockville.	Buchanan, W. A.	Lethbridge.
Aylesworth, Sir A. B., P.C.	Toronto.	Riley, Daniel E.	High River.
Haydon, Andrew	Ottawa.		
Murphy, Chas., P.C.	Ottawa.		
Lewis, John	Toronto.		
Rankin, Jas. P.	Stratford.	**British Columbia** (6 senators)-	
Graham, Rt. Hon. George P., P.C.	Brockville.	Bostock, Hewitt, P.C.	Monte Creek.
McGuire, William H.	Toronto.	Planta, A. E.	Nanaimo.
Spence, Jas. H.	Toronto.	Barnard, G. H.	Victoria.
Little, Edgar S.	London.	Taylor, J. D.	New Westminster.
Lacasse, Gustave	Tecumseh.	Green, R. F.	Victoria.
Horsey, H. H.	Cressy.	Crowe, S. J.	Vancouver.

Subsection 4.—The House of Commons.

In section 37 of the original British North American Act of 1867 (30 Vict., c. 3), it was provided that "The House of Commons shall . . . . consist of one hundred and eighty-one members, of whom eighty-two shall be elected for Ontario, sixty-five for Quebec, nineteen for Nova Scotia, and fifteen for New Brunswick". Further, under section 51, it was enacted that after the completion of the census of 1871 and of each subsequent decennial census, the representation of the four provinces should be readjusted by such authority, in such manner, and from such time as the Parliament of Canada provided, subject to and according to the following rules:—

(1) Quebec shall have the fixed number of Sixty-five Members;
(2) There shall be assigned to each of the other provinces such a Number of Members as will bear the same Proportion to the Number of its Population (ascertained at such Census) as the Number Sixty-five bears to the Number of the Population of Quebec (so ascertained);
(3) In the Computation of the Number of Members for a Province a fractional Part not exceeding One Half of the whole Number requisite for entitling the Province to a Member shall be disregarded; but a fractional Part exceeding One Half of that Number shall be equivalent to the whole Number;
(4) On any such Re-adjustment the Number of Members for a Province shall not be reduced unless the Proportion which the Number of the Population

of the Province bore to the Number of the aggregate Population of Canada at the then last preceding Re-adjustment of the Number of Members for the Province is ascertained at the then latest Census to be diminished by One Twentieth Part or upwards;

(5) Such Re-adjustment shall not take effect until the Termination of the then existing Parliament.

Again, in section 52, it was enacted that "the number of members of the House of Commons may be from time to time increased by the Parliament of Canada, provided the proportionate representation of the Provinces prescribed by this Act is not thereby disturbed".

Later on, by the British North America Act of 1886 (49-50 Vict., c. 35), provision was made in section 1 that "the Parliament of Canada may from time to time make provision for the representation in the Senate and House of Commons of Canada, or in either of them, of any territories which for the time being form part of the Dominion of Canada, but are not included in any province thereof".

Again, in 1915, an amendment to the British North America Act (5-6 Geo. V, c. 45) was passed by the Imperial Parliament, providing that "notwithstanding anything in the said Act, a province shall always be entitled to a number of members in the House of Commons not less than the number of senators representing such province".

Readjustments in Representation.—As set out in the above-mentioned provisions of the British North America Act, the first Dominion Parliament of 1867 consisted at its commencement of 181 members, 82 for Ontario, 65 for Quebec, 19 for Nova Scotia and 15 for New Brunswick. To this number were added, under the Manitoba Act of 1870 (33 Vict., c. 3), 4 members to represent the newly created province of Manitoba; also, according to the agreement under which British Columbia entered Confederation, ratified by Imperial Order in Council of May 16, 1871, 6 members were added to represent the new province, making a total of 191 members at the end of the first Parliament of Canada.

Arising out of the first census of the Dominion in 1871, a readjustment of representation took place in 1872 (c. 15 of 1872), increasing the representation of Ontario from 82 to 88, of Nova Scotia from 19 to 21 and of New Brunswick from 15 to 16 members, the 9 additional members bringing the total number of representatives up to 200. To these were added in 1874, as a result of the agreement under which Prince Edward Island entered Confederation (ratified by Imperial Order in Council of June 26, 1873), 6 members representing that province—bringing the membership of the House of Commons to 206.

The results of the second census of 1881 necessitated the passage of a new Representation Act (45 Vict., c. 3), increasing the representation of Ontario from 88 to 92 and that of Manitoba from 4 to 5, thus bringing the membership of the House of Commons to 211 members. To these were added, under the provisions of 49 Vict., c. 24, passed in 1886, 4 members for the Northwest Territories (2 for the then provisional district of Assiniboia and 1 each for the then provisional districts of Alberta and Saskatchewan), bringing the total membership to 215.

The third census of 1891 was followed by another readjustment of representation, reducing the representation of Nova Scotia from 21 to 20, of New Brunswick from 16 to 14, of Prince Edward Island from 6 to 5, and increasing the representation of Manitoba from 5 to 7, the representation of the other provinces remaining as before. The net result was a reduction in the number of members of the House from 215 to 213.

The fourth census of 1901 resulted in a readjustment in 1903, reducing the representation of Ontario from 92 to 86, of Nova Scotia from 20 to 18, of New Brunswick from 14 to 13, of Prince Edward Island from 5 to 4. On the other hand, the representation of Manitoba was increased from 7 to 10, of British Columbia from 6 to 7, of the Northwest Territories from 4 to 10. By chapter 37 of the statutes of 1902, a member had been added for Yukon Territory, so that the net effect of the changes was to keep the membership at 214 in the early years of the present century. The extremely rapid growth of the Northwest Territories, however, led to their division and admission to Confederation in 1905 as the provinces of Alberta and Saskatchewan. In the Acts admitting them—the Alberta Act (4-5 Edw. VII, c. 3) and the Saskatchewan Act (4-5 Edw. VII, c. 42)—it was provided that their representation should be readjusted on the basis of the results of the quinquennial census of 1906. The Representation Act of 1907, implementing this pledge, increased the representation of Saskatchewan from 6 to 10 and of Alberta from 4 to 7 members, thus raising the total membership of the House of Commons to 221.

The census of 1911, with its very large but very unevenly distributed increase of population, led to considerable changes in representation, enacted by the Representation Act of 1914. The representation of Ontario was reduced from 86 to 82, of Nova Scotia from 18 to 16, of New Brunswick from 13 to 11, of Prince Edward Island from 4 to 3. On the other hand, the representation of Manitoba was raised from 10 to 15, of Saskatchewan from 10 to 16, of Alberta from 7 to 12 and of British Columbia from 7 to 13. The net result was an increase of 13 members in the total membership of the House of Commons, bringing the membership to 234. However, in the following session the amendment to the British North America Act, already referred to, resulted in the retention by Prince Edward Island of her fourth member (since she had 4 senators). (See also 5 Geo. V, c. 19). The total membership, therefore, of the House of Commons in the thirteenth and fourteenth Parliaments (elected in 1917 and 1921 respectively) was 235.

As a result of the smaller increase of population shown by the census of 1921, the changes in representation were less far-reaching. Nova Scotia lost 2 members and the West gained 12, 2 of these being added to Manitoba, 5 to Saskatchewan, 4 to Alberta and 1 to British Columbia. The representation of the remaining four provinces was unchanged. Prince Edward Island retained its 4 members because of the provisions of the British North America Act of 1915, to the effect that the members of the House of Commons returned by a province shall never be fewer than its senators. Ontario, again, retained its 82 members because under subsection 4 of section 51 of the British North America Act (quoted p. 69), the proportion which its population bore to the aggregate population of the Dominion had not declined by one-twentieth. Further, by the Quebec Boundaries Extension Act of 1912, it was stipulated that the population of the added area (Ungava) should not be included for the purpose of determining the unit of representation, so that the 1921 population of Quebec, within its 1911 boundaries, viz., 2,358,412, divided by the fixed number of 65 seats for that province, became the new unit of representation, 36,283.

The number of representatives of each province elected at each of the sixteen general elections since Confederation is given in Table 6.

6.—Representation in the House of Commons as at Dominion General Elections, 1867-1926.

Provinces.	1867.	1872.	1874.	1878.	1882.	1887.	1891.	1896.	1900.	1904.	1908.	1911.	1917.	1921.	1925.[1]
Ontario	82	88	88	88	92	92	92	92	92	86	86	86	82	82	82
Quebec	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Nova Scotia	19	21	21	21	21	21	21	20	20	18	18	18	16	16	14
New Brunswick	16	16	16	16	16	16	16	14	14	13	13	13	11	11	11
Manitoba	–	4	4	4	5	5	5	7	7	10	10	10	15	15	17
British Columbia	–	6	6	6	6	6	6	6	7	7	7	7	13	13	14
P.E. Island	–	–	6	6	6	6	6	6	5	4	4	4	4	4	4
Saskatchewan	–	–	–	–	–	} -	4	4	4	10	10	10	16	16	21
Alberta	–	–	–	–	–	}					–	7	12	12	16
Yukon	–	–	–	–	–	–	–	–	–	1	1	1	1	1	1
Total	**181**	**200**	**206**	**206**	**211**	**215**	**215**	**213**	**213**	**214**	**221**	**221**	**235**	**235**	**245**

[1] The representation at the general election of 1926 was the same as in 1925.

The Unit of Representation.—While the number of members of the House of Commons has been growing fairly steadily since Confederation, the unit of representation—one sixty-fifth of the population of Quebec within its 1911 boundaries—has also been increased after each census in consequence of the expanding population of Quebec. The units of representation, as determined by the decennial censuses taken since Confederation, are as follows:—1871, 18,331 persons; 1881, 20,908; 1891, 22,901; 1901, 25,368; 1911, 30,819; 1921, 36,283.

The Representation Act, 1924.—As a result of the census of 1921, the Representation Act of 1924, (14-15 Geo. V, c. 63), was passed to readjust the representation in the House of Commons. Considerable changes were necessarily made in the boundaries of the theretofore existing constituencies, and a list of such changes was given on p. 73 of the 1924 Year Book. A complete list of the constituencies, with the voters on the list and votes polled at the general election of Sept. 14, 1926, together with the names and addresses of those then elected to the House of Commons of the sixteenth Parliament of Canada, will be found in Table 7. Changes occurring at subsequent by-elections are indicated in the foot-notes.

7.—Electoral Districts, Voters on Lists and Votes Polled, Names and Addresses of Members of the House of Commons, as elected at the Sixteenth General Election, Sept. 14, 1926.

Provinces and Electoral Districts.	Population, 1921.	Voters on List.	Votes Polled.	Names of Members.	P.O. Addresses.
Prince Edward Island— (4 members).					
Kings	20,445	10,183	8,599	Macdonald, Hon. J. A.	Cardigan, P.E.I.
Prince	31,520	16,020	13,042	MacLean, A. E.	Summerside, P.E.I.
Queens	36,650	20,005	33,928	Jenkins, R. H.	Charlottetown, P.E.I.
				Sinclair, Hon. J. E.	Summerfield, P.E.I.
Nova Scotia— (14 members).					
Antigonish-Guysborough	27,098	15,163	12,203	Douglas, John C.[1]	Halifax, N.S.
Cape Breton North-Victoria	31,325	15,006	11,004	Johnstone, L. W.	Sydney Mines, N.S.
Cape Breton South	58,716	24,411	15,406	MacDonald, Finlay.	Sydney, N.S.

[1] Mr. J. C. Douglas died on Dec. 9, 1926, and Mr. Wm. Duff was elected at the ensuing by-election and gazetted Feb. 4, 1927.

7.—Electoral Districts, Voters on Lists and Votes Polled, Names and Addresses of Members of the House of Commons, as elected at the Sixteenth General Election, Sept. 14, 1926—continued.

Provinces and Electoral Districts.	Population, 1921.	Voters on List.	Votes Polled.	Names of Members.	P.O. Addresses.
Nova Scotia—concluded.					
Colchester	25,196	14,161	10,151	MacNutt, G. T.	Stewiacke, N.S.
Cumberland	41,191	21,265	14,843	Smith, R. K.	Amherst, N.S.
Digby-Annapolis	37,765	20,324	16,144	Short, H. B.	Digby, N.S.
Halifax City and County	97,228	49,911	63,349	(Black, Hon. W. A. (Quinn, F. P.	Halifax, N.S. Halifax, N.S.
Hants-Kings	43,462	25,084	20,539	Ilsley, J. L.	Kentville, N.S.
Inverness	23,808	12,156	9,284	Macdougall, I. D.	Strathlorne, N.S.
Pictou	40,851	21,827	17,290	Cantley, T.	New Glasgow, N.S.
Queens-Lunenburg	43,686	23,949	19,155	Ernst, W. G.	Bridgewater, N.S.
Richmond-West Cp-Breton	17,646	10,128	7,078	Macdonald, J. A.	St. Peters, N.S.
Shelburne-Yarmouth	35,865	18,327	13,400	Hatfield, P. L.[1]	Yarmouth, N.S.
New Brunswick—(11 members).					
Charlotte	21,435	12,981	8,671	Grimmer, R. W.	St. Stephen, N.B.
Gloucester	38,684	17,991	14,454	Veniot, Hon. P. J.	Bathurst, N.B.
Kent	23,916	11,341	9,008	Bourgeois, A. E.	Buctouche, N.B.
Northumberland	33,985	17,779	11,999	Morrissy, C. J.	Newcastle, N.B.
Restigouche-Madawaska	42,977	22,218	16,018	Blanchard, S.	Dalhousie, N.B.
Royal	32,078	17,709	13,313	Jones, Hon. G. B.	Apohaqui, N.B.
St. John-Albert	69,093	40,114	40,517	(MacLaren, M. (Bell, Thomas	Saint John, N.B. Saint John, N.B.
Victoria-Carleton	33,900	18,175	14,716	Flemming, J. K.[2]	Aberdeen, N.B.
Westmoreland	53,387	30,156	21,096	Price, O. B.	Moncton, N.B.
York-Sunbury	38,421	21,564	12,985	Hanson, R. B.	Fredericton, N.B.
Quebec—(65 members).					
Argenteuil	17,165	9,234	8,017	Perley, Hon. Sir G. H.	Ottawa, Ont.
Bagot	18,035	7,848	7,088	Morin, G. D.	St-Pie-de-Bagot, Que.
Beauce	52,701	22,520	13,810	Lacroix, E.	St-George-de-Beauce, Que.
Beauharnois	19,888	9,729	7,810	Raymond, M.	Outremont, Que.
Bellechasse	21,190	8,930	6,853	Boulanger, O. L.	Quebec, Que.
Berthier-Maskinongé	36,762	16,577	11,280	Gervais, T.	Berthier, Que.
Bonaventure	29,092	13,762	11,399	Marcil, Hon. C.	Ottawa, Ont.
Brome-Missisquoi	31,180	16,506	13,220	Kay, W. F.	Phillipsburg, Que.
Chambly-Verchères	34,643	19,449	15,805	Langlois, J. V. A.	Varennes, Que.
Champlain	47,852	21,838	15,496	Desaulniers, A. L.	Ste. Anne de la Pérade, Que.
Charlevoix-Saguenay	46,366	19,374	11,539	Casgrain, P. F.	Westmount, Que.
Chauteauguay-Huntingdon	26,731	13,838	10,732	Robb, Hon. J. A.	Valleyfield, Que.
Chicoutimi	37,578	20,194	10,874	Dubuc, J. E. A.	Chicoutimi, Que.
Compton	32,816	15,086	12,139	Letellier, J. E.	Megantic, Que.
Dorchester	29,563	12,953	9,297	Cannon, Hon. Lucien	Quebec, Que.
Drummond-Arthabaska	44,372	21,331	13,466	Girouard, W.	Arthabaska, Que.
Gaspé	40,375	18,383	13,704	Lemieux, Hon. R.	Ottawa, Ont.
Hull	39,180	22,422	13,170	Fontaine, J. E.	Hull, Que.
Joliette	25,913	12,226	9,916	Denis, J. J.[3]	Joliette, Que.
Kamouraska	22,014	10,126	6,952	Bouchard, Georges	Ste. Anne de la Pocatière, Que.
Labelle	35,927	15,684	8,848	Bourassa, H.	Montreal, Que.
Lake St. John	35,539	17,227	13,869	Sylvestre, J. E. A.	Roberval, Que.
Laprairie-Napierville	20,065	8,903	7,090	Lanctôt, R.	St. Constant, Que.
L'Assomption-Montcalm	28,318	14,175	7,974	Séguin, P. A.	L'Assomption, Que.
Laval-Two Mountains	28,314	13,398	8,091	Lacombe, L.	Ste. Scholastique, Que.
Lévis	33,323	16,481	13,053	Dussault, J. E.	Levis, Que.
L'Islet	17,859	8,081	6,450	Fafard, J. F.	L'Islet, Que.
Lotbinière	21,837	10,127	8,012	Verville, J. A.	St. Flavien, Que.
Matane	36,303	16,435	12,669	Dionne, G. L.	St. Benoit, Que.
Megantic	33,633	14,017	9,794	Roberge, E.	Laurierville, Que.
Montmagny	21,997	9,975	7,691	Laflamme, L. K.	Montmagny, Que.
Nicolet	29,695	13,220	10,439	Descoteaux, J. F.	Ste. Monique, Que.
Pontiac	45,682	28,583	17,406	Cahill, F. S.	Campbell's Bay, Que.
Portneuf	34,452	16,445	11,647	Delisle, M. S.	Portneuf, Que.
Quebec-Montmorency	31,000	15,106	11,774	Lavigueur, H. E.	Quebec, Que.
Quebec East	40,722	20,038	15,901	Lapointe, Hon. E.	Ottawa, Ont.

[1]Mr. Hatfield was appointed to the Senate on Oct. 7, 1926, and Hon. J. L. Ralston was elected by acclamation on Nov. 2, 1926. [2]Mr. J. K. Flemming died on Feb. 10, 1927, and Mr. A. R. Foster was elected by acclamation on June 16, 1927. [3]Mr. J. J. Denis resigned, and Mr. Chas. E. Ferland was elected on Dec. 17, 1928.

7.—Electoral Districts, Voters on Lists and Votes Polled, Names and Addresses of Members of the House of Commons, as elected at the Sixteenth General Election, Sept. 14, 1926—continued.

Provinces and Electoral Districts.	Population, 1921.	Voters on List.	Votes Polled	Names of Members.	P.O. Addresses.
Quebec—concluded.					
Quebec South	25,875	16,129	12,324	Power, C. G.	Quebec, Que.
Quebec West	37,562	16,970	14,076	Parent, Georges	Quebec, Que.
Richelieu	19,548	9,546	7,867	Cardin, Hon. P. J. A.	Sorel, Que.
Richmond-Wolfe	42,248	18,848	13,963	Tobin, E. W.	Bromptonville, Que.
Rimouski	27,520	12,563	9,008	Fiset, Sir E.	Rimouski, Que.
St. Hyacinthe-Rouville	36,754	17,732	9,260	Morin, L. S. R.	St. Hyacinthe, Que.
St. Johns-Iberville	23,518	11,435	9,154	Benoît, A. J.	Iberville, Que.
Shefford	25,644	13,238	10,043	Boivin, P. E.	Granby, Que.
Sherbrooke	30,786	17,227	12,308	Howard, C. B.	Sherbrooke, Que.
Stanstead	23,380	11,939	8,897	Baldwin, W. K.	Baldwin's Mills, Que.
Témiscouata	44,310	19,320	15,030	Pouliot, J. F.	Rivière du Loup, Que.
Terrebonne	33,908	15,582	9,399	Prévost, J. E.	St. Jérome, Que.
Three-Rivers-St. Maurice	50,845	25,081	17,263	Bettez, A.	Three Rivers, Que.
Vaudreuil-Soulanges	21,620	10,794	7,266	Wilson, L. A.	Coteau du Lac, Que.
Wright	25,867	15,007	11,127	Perras, F. W.	Gracefield, Que.
Yamaska	18,507	7,534	6,618	Boucher, A.	Pierreville, Que.
Montreal Island—					
Cartier	48,869	16,003	10,356	Jacobs, S. W.	Westmount, Que.
Hochelaga	67,836	30,976	19,533	St. Père, E. C.	Montreal, Que.
Jacques Cartier	70,856	44,197	35,706	Rhéaume, J. T.	Montreal, Que.
Laurier-Outremont	67,682	28,910	21,311	Mercier, J. A.	Outremont, Que.
Maisonneuve	65,646	32,236	21,361	Robitaille, C.	Montreal, Que.
Mount Royal	39,487	26,911	18,828	White, R. S.	Westmount, Que.
St. Ann	54,834	27,370	20,972	Guérin, J. J. E.	Montreal, Que.
St. Antoine	33,338	16,572	12,854	Bell, L. G.	Westmount, Que.
St. Denis	75,475	43,070	26,562	Denis, J. A.	Montreal, Que.
St. Henri	44,372	17,878	12,306	Mercier, Paul	Montreal, Que.
St. James	54,741	23,194	15,120	Rinfret, L. E. F.	Montreal, Que.
St. Lawrence—					
St. George	37,688	13,072	9,688	Cahan, C. H.	Montreal, Que.
St. Mary	63,381	24,088	17,820	Deslauriers, H.	Montreal, Que.
Ontario—					
(82 members).					
Algoma East	37,054	17,620	13,105	Bowman, B.	Long Bay, Ont.
Algoma West	35,509	22,566	11,414	Simpson, T. E.	Sault Ste. Marie, Ont.
Brant	20,085	10,843	8,303	Smoke, Franklin	Paris, Ont.
Brantford City	33,292	18,519	13,094	Ryerson, R. E.	Brantford, Ont.
Bruce, North	20,872	12,283	10,474	Malcolm, Hon. J.	Kincardine, Ont.
Bruce South	23,413	13,642	10,370	Hall, W. A.	Walkerton, Ont.
Carleton	32,673	21,336	13,260	Garland, W. F.	Ottawa, Ont.
Dufferin-Simcoe	40,225	20,550	13,699	Rowe, W. E.	Newton Robinson, Ont.
Durham	24,629	16,495	11,563	Bowen, F. W.	Newcastle, Ont.
Elgin West	35,413	23,564	15,697	Hepburn, M. F.	St. Thomas, Ont.
Essex East	25,283	18,915	14,357	Odette, E. G.	Tilbury, Ont.
Essex South	29,375	18,369	13,279	Gott, E. J.	Amherstburg, Ont.
Essex West	49,418	41,865	22,833	Robinson, S. C.	Walkerville, Ont.
Fort William	27,851	14,039	7,658	Manion, Hon. R. J.	Fort William, Ont.
Frontenac-Addington	30,347	17,201	12,977	Edwards, Hon. J. W.	East View Park, Ont.
Glengarry	20,518	11,051	8,228	Macdonald, A. J.	North Lancaster, Ont.
Grenville-Dundas	33,953	20,616	12,885	Casselman, A. C.	Prescott, Ont.
Grey North	30,667	19,810	14,667	Telford, W. T.	Owen Sound, Ont.
Grey Southeast	28,384	17,694	14,190	Macphail, Agnes C.	Ceylon, Ont.
Haldimand	21,287	13,071	9,557	Senn, M. C.	Caledonia, Ont.
Halton	24,899	15,712	10,550	Anderson, R. K.	Milton, Ont.
Hamilton East	54,233	34,236	17,979	Rennie, G. S.	Hamilton, Ont.
Hamilton West	53,254	31,532	14,590	Bell C. W.	Hamilton Ont.
Hastings-Peterborough	28,999	15,144	9,494	Embury A. T.	Bancroft, Ont.
Hastings South	37,504	24,958	15,641	Tummon, W. E.	Tweed, Ont.
Huron North	23,540	14,608	11,452	King, J. W.[1]	Bluevale, Ont.
Huron South	23,548	14,582	11,628	McMillan, T.	Seaforth, Ont.
Kenora-Rainy River	26,315	15,425	10,694	Heenan, Hon. P.	Kenora, Ont.
Kent	50,638	29,725	22,974	Rutherford, J. W.	Chatham, Ont.
Kingston City	24,104	15,485	10,454	Ross, A. E.	Kingston, Ont.
Lambton East	28,271	16,628	13,250	Fansher, B. W.	Lawrence, Ont.
Lambton West	30,418	19,594	15,011	Goodison, W. T.[2]	Sarnia, Ont.
Lanark	32,993	20,248	13,060	Preston, R. F.[3]	Carleton Place, Ont.
Leeds	34,909	21,338	16,273	Stewart, H. A.	Brockville, Ont.

[1]Mr. King died Jan. 14, 1927, and Mr. G. Spotton was elected on Sept. 12, 1927. [2]Mr. W. T. Goodison died Dec. 3, 1928, and Mr. Ross W. Gray was elected by acclamation on Jan. 14, 1929. [3]Hon. Dr. Preston died Feb. 7, 1929.

.—Electoral Districts, Voters on Lists and Votes Polled, Names and Addresses of Members of the House of Commons, as elected at the Sixteenth General Election, Sept. 14, 1926—continued.

Provinces and Electoral Districts.	Population, 1921.	Voters on List.	Votes Polled.	Names of Members.	P.O. Addresses.
Ontario—concluded.					
Lincoln	48,625	30,165	17,075	Chaplin, Hon. J. D.	St. Catharines, Ont.
London	53,838	36,197	23,739	White, J. F.	London, Ont.
Middlesex East	27,994	17,578	11,129	Hodgins, A. K.	Lucan, Ont.
Middlesex West	25,033	14,490	10,287	Elliott, Hon. J. C.	London, Ont.
Muskoka-Ontario	34,859	21,099	14,832	McGibbon, P.	Bracebridge, Ont.
Nipissing	49,965	29,418	20,668	Lapierre, E. A.	Sudbury, Ont.
Norfolk-Elgin	35,937	22,326	17,147	Taylor, W. H.	Scotland, Ont.
Northumberland	30,512	19,568	16,000	Maybee, M. E.	Trenton, Ont.
Ontario	31,074	21,770	16,297	Kaiser, T. E.	Oshawa, Ont.
Ottawa	93,740	71,402	89,643	Chevrier, E. R. E.	Ottawa, Ont.
				Edwards, G. C.	Ottawa, Ont.
Oxford North	24,527	15,143	12,832	Allan, H.	Drumbo, Ont.
Oxford South	22,235	14,204	11,458	Cayley, T. M.	Norwich, Ont.
Parkdale	59,545	35,285	16,051	Spence, D.	Toronto, Ont.
Parry Sound	27,022	13,979	9,810	Arthurs, J.	Parry Sound, Ont.
Peel	23,896	16,641	13,329	Charters, S.	Brampton, Ont.
Perth North	32,461	21,144	15,859	Hay, F. W.	Listowel, Ont.
Perth South	18,382	11,466	9,437	Sanderson, F. G.	St. Mary's, Ont.
Peterborough West	34,054	21,192	15,805	Peck, E. A.	Peterborough, Ont.
Port Arthur-Thunder Bay	27,158	13,605	8,761	Cowan, D. J.	Port Arthur, Ont.
Prescott	26,478	12,814	10,200	Auger, L. M.	Hawkesbury, Ont.
Prince Edward-Lennox	25,843	16,674	13,369	Hubbs, J.	Picton, Ont.
Renfrew North	27,079½	15,707	11,479	Cotnam, I. D.	Pembroke, Ont.
Renfrew South	27,061	15,310	12,051	Maloney, M. J.	Eganville, Ont.
Russell	43,413	22,032	13,992	Goulet, A.	Bourget, Ont.
Simcoe East	37,122	20,848	15,713	Thompson, A. B.	Penetanguishene, Ont.
Simcoe North	22,100	18,486	13,955	Boys, W. A.	Barrie, Ont.
Stormont	25,134	16,133	12,754	Smith, A. N.	Cornwall, Ont.
Timiskaming North	26,028	25,116	16,417	Bradette, J.	Cochrane, Ont.
Timiskaming South	31,747	20,445	13,779	Lang, M.	Haileybury, Ont.
Toronto East	67,735	38,829	17,144	Ryckman, Hon. E. B.	Toronto, Ont.
Toronto East Centre	69,717	35,502	15,621	Matthews, R. C.	Toronto, Ont.
Toronto High Park	50,856	33,770	16,585	Anderson, A. J.	Toronto, Ont.
Toronto Northeast	58,319	45,480	26,732	Young, N. M.	Toronto, Ont.
Toronto Northwest	61,484	39,546	16,028	Church, T. L.	Toronto, Ont.
Toronto-Scarborough	49,749	42,566	18,527	Harris, J. H.	Toronto, Ont.
Toronto South	49,291	17,806	6,577	Geary, G. R.	Toronto, Ont.
Toronto West Centre	59,197	31,197	14,646	Hocken, H. C.	Toronto, Ont.
Victoria	33,995	20,074	15,101	Stinson, T. H.	Lindsay, Ont.
Waterloo North	41,698	27,520	16,817	Euler, Hon. W. D.	Kitchener, Ont.
Waterloo South	33,568	21,324	12,188	Edwards, A. McK.	Galt, Ont.
Welland	66,668	41,337	27,366	Fettit, G. H.	Welland, Ont.
Wellington North	19,833	12,256	9,302	Sinclair, D.	Harriston, Ont.
Wellington South	34,327	23,651	16,015	Guthrie, Hon. H.	Guelph, Ont.
Wentworth	46,080	30,314	16,352	Wilson, G. C.	Dundas, Ont.
York North	36,222	24,348	20,060	Lennox, T. H.	Aurora, Ont.
York South	27,895	22,194	11,474	McGregor, R. H.	Toronto, Ont.
York West	61,655	50,247	21,204	Drayton, Hon. Sir H. L.[2]	Ottawa, Ont.
Manitoba— (17 members).					
Brandon	39,647	18,633	15,425	Forke, Hon. R.	Pipestone, Man.
Dauphin	37,220	17,309	12,832	Ward, W. J.	Dauphin, Man.
Lisgar	31,101	11,307	8,474	Brown, J. L.	Pilot Mount, Man.
Macdonald	31,726	14,905	11,002	Lovie, W. J.	Holland, Man.
Marquette	37,150	18,551	13,617	Glenn, J. A.	Russell, Man.
Neepawa	28,105	14,502	10,813	Milne, R.	Mekiwin, Man.
Nelson	21,860	7,713	5,705	Bird, T. W.	Swan River, Man.
Portage la Prairie	33,866	17,093	12,421	McPherson, E. A.	Portage la Prairie, Man.
Provencher	31,617	[1]	[1]	Beaubien, A. L.	St. Jean Baptiste, Man.
Selkirk	42,663	18,346	12,208	Bancroft, L. P.	Teulon, Man.
Souris	25,576	13,652	11,103	Steedsman, J.	Deloraine, Man.
Springfield	35,754	12,482	7,903	Bissett, E. D. R.	Beauséjour, Man.
St. Boniface	38,987	15,597	11,644	Howden, J. P.	Norwood, Man.
Winnipeg North	57,042	15,285	12,693	Heaps, A. A.	Winnipeg, Man.
Winnipeg North Centre	39,646	13,697	11,473	Woodsworth, J. S.	Winnipeg, Man.
Winnipeg South	41,004	19,558	16,562	McDiarmid, J. S.	Winnipeg, Man.
Winnipeg South Centre	66,092	28,614	24,153	Thorson, J. T.	Winnipeg, Man.

[1]Acclamation. [2]Sir Henry Drayton resigned and Mr. J. E. Lawson was elected by acclamation on Oct. 29, 1928.

7.—Electoral Districts, Voters on Lists and Votes Polled, Names and Addresses of Members of the House of Commons, as elected at the Sixteenth General Election, Sept. 14, 1926—concluded.

Provinces and Electoral Districts.	Population, 1921.	Voters on List.	Votes Polled.	Names of Members.	P.O. Addresses.
Saskatchewan— (21 members).					
Assiniboia	37,854	16,956	13,094	McKenzie, R.	Stoughton, Sask.
Humboldt	41,122	16,835	8,753	Totzke, A. F.	Vonda, Sask.
Kindersley	31,832	15,120	10,981	Carmichael, A. M.	Kindersley, Sask.
Last Mountain	35,608	14,518	10,116	Fansher, W. R.	Govan, Sask.
Long Lake	33,280	13,997	8,771	Johnston, J. F.	Bladworth, Sask.
Mackenzie	38,179	16,558	10,458	Campbell, M. N.	Pelly, Sask.
Maple Creek	39,444	19,422	14,028	Spence, G.[1]	Orkney, Sask.
Melfort	38,403	17,171	11,636	McLean M.	Eldersley, Sask.
Melville	38,591	15,873	11,838	Motherwell, Hon. W. R.	Abernethy, Sask.
Moose Jaw	42,496	19,320	16,404	Ross, J. G.	Moose Jaw, Sask.
North Battleford	38,829	16,468	9,139	McIntosh, C. R.	North Battleford, Sask.
Prince Albert	44,136	18,337	13,827	King, Rt. Hon. W. L. Mackenzie	Ottawa, Ont.
Qu'Appelle	34,055	16,589	13,706	Miller, J.	Indian Head, Sask.
Regina	44,463	19,291	17,016	Dunning, Hon. C. A.	Regina, Sask.
Rosetown	30,903	14,031	8,497	Evans, J.	Saskatoon, Sask.
Saskatoon	47,109	18,680	13,829	Young, A. MacG.	Saskatoon, Sask.
South Battleford	40,816	18,089	13,016	Vallance, John	Onward, Sask.
Swift Current	39,988	16,343	11,048	Bothwell, C. E.	Swift Current, Sask.
Weyburn	40,352	15,747	9,594	Young, E. J.	Dummer, Sask.
Willow Bunch	47,380	20,913	13,118	Donnelly, T.	Kincaid, Sask.
Yorkton	36,192	13,213	7,591	McPhee, G. W.	Yorkton, Sask.
Alberta— (16 members).					
Acadia	33,188	16,190	8,893	Gardiner, R.	Excel, Alta.
Athabaska	41,095	16,715	7,706	Kellner, D. F.	Edmonton, Alta.
Battle River	37,215	16,623	7,706	Spencer, H. E.	Edgerton, Alta.
Bow River	33,776	14,050	8,275	Garland, E. J.	Rumsey, Alta.
Calgary East	40,328	20,050	12,069	Adshead, H.B.	Calgary, Alta.
Calgary West	41,064	22,491	15,514	Bennett, Hon. R. B.	Calgary, Alta.
Camrose	38,564	16,909	8,646	Lucas, W. T.	Lougheed, Alta.
Edmonton East	40,017	19,548	11,500	Blatchford, K. A.	Edmonton, Alta.
Edmonton West	43,494	22,118	13,053	Stewart, Hon. Chas.	Edmonton, Alta.
Lethbridge	39,646	15,404	8,634	Jelliff, L. H.	Raley, Alta.
Macleod	36,872	16,981	10,342	Coote, G. G.	Cayley, Alta.
Medicine Hat	28,444	12,972	8,555	Gershaw, F. W.	Medicine Hat, Alta.
Peace River	42,784	21,949	12,484	Kennedy, D. MacB.	Waterhole, Alta.
Red Deer	36,678	16,854	7,778	Speakman, A.	Red Deer, Alta.
Vegreville	35,470	14,337	7,545	Luchkovich, M.	Vegreville, Alta.
Wetaskiwin	38,949	16,272	9,342	Irvine, W.	Bentley, Alta.
British Columbia— (14 members).					
Cariboo	39,834	19,262	13,643	Fraser, J. A.	Quesnel, B.C.
Comox-Alberni	21,378	9,430	7,362	Neill, A. W.	Alberni, B.C.
Fraser Valley	28,811	14,004	10,386	Barber, H. J.	Chilliwack, B.C.
Kootenay East	19,137	10,232	8,330	King, Hon. J. H.	Ottawa, Ont.
Kootenay West	30,502	15,072	11,556	Esling, W. K.	Rossland, B.C.
Nanaimo	48,010	25,244	15,841	Dickie, C. H.	Duncan, B.C.
New Westminster	45,982	25,848	18,609	McQuarrie, W. G.	New Westminster, B.C.
Skeena	28,934	10,712	8,050	Brady, J. C.	Prince Rupert, B.C.
Vancouver-Burrard	56,338	30,560	21,015	Clark, J. A.	Vancouver, B.C.
Vancouver Centre	60,879	29,878	19,417	Stevens, Hon. H. H.	Vancouver, B.C.
Vancouver North	24,215	14,452	10,920	McRae, A. D.	Vancouver, B.C.
Vancouver South	46,137	24,188	17,480	Ladner, L. J.	Point Grey, B.C.
Victoria	38,727	16,734	10,935	Tolmie, Hon. S. F.[2]	Victoria, B.C.
Yale	35,698	16,646	11,801	Stirling, G.	Kelowna, B.C.
Yukon Territory— (1 member).					
Yukon	4,157	1,848	1,482	Black, G.	Dawson, Yukon.

[1] Mr. Spence resigned and Mr. W. G. Bock was elected by acclamation on Nov. 25, 1927. [2]Hon. S. F. Tolmie resigned and Mr. E. B. Plunkett was elected on Dec. 6, 1928.

Subsection 5.—The Dominion Franchise.[1]

It was provided by the B.N.A. Act, 1867, that, until otherwise directed by Parliament, elections to the House of Commons should be governed by the electoral laws of the several provinces. The qualifications of electors throughout the Dominion consequently remained the same for both Dominion and provincial elections until, in 1885, Parliament legislated on the subject by passing the Electoral Franchise Act (1885, c. 40). That Act defined a uniform qualification for voters throughout Canada for Dominion purposes, the basis of this new franchise being the ownership or occupation of land of a specified value, although the sons of owners, and particularly farmers' sons, were given the right to vote on special conditions; each province, of course, continued separately to define the qualifications of voters at provincial elections. This Dominion franchise remained in force for thirteen years, but between 1898 and 1920, under the Franchise Act of the former year (1898, c. 14), the provincial franchises were again made applicable at Dominion elections, except that on the constitution of the provinces of Alberta and Saskatchewan it was provided that manhood suffrage, which had already been adopted for the Northwest Territories under an Act to amend the N.W.T. Act (1895, c. 16), should continue in force for Dominion purposes independently of any action that might be taken by the newly elected Legislatures of these two provinces (R.S.C. 1906, c. 6, ss. 31-65). In the other provinces the rules as to the qualification of voters varied from time to time. In Manitoba manhood suffrage had been adopted in 1888 (1888, c. 2) and the franchise was extended to women on the same terms as to men in 1916 (1916, c. 36). Alberta and Saskatchewan, on their establishment as provinces, continued the previously existing manhood suffrage and both extended the franchise to women on the same terms as to men in 1916 (Alta. 1916, c. 5; Sask. 1916, c. 37). British Columbia adopted manhood suffrage in 1904 (1903-1904, c. 7), Ontario in 1907 (7 Ed. VII, c. 5), and New Brunswick in 1916 (6 Geo. V, c. 16); in British Columbia (1917, c. 23) and in Ontario (7 Geo. V, c. 5), the franchise was extended equally to women in 1917, and in New Brunswick this was done in 1919 (9 Geo. V, c. 63). In Quebec and Prince Edward Island the provincial franchises throughout the period in question were not so wide; in neither were women admitted to vote and certain property or other special qualifications were required in each. A property qualification was also required in Nova Scotia until 1920 (10-11 Geo. V, c. 49), but between 1918 and 1920 men and women had voted on equal terms (9 Geo. V, c. 3). The adoption of the provincial franchise laws for Dominion purposes was temporarily modified by the War Times Elections Act (1917, c. 39), which admitted certain near female relatives of serving soldiers and sailors to vote at Dominion elections, and three years later, on the adoption of a new Dominion Elections Act (1920, c. 46), the provincial franchises were again wholly abandoned and a new electoral qualification was established for Dominion elections throughout Canada. Subject to a modification of the usual rule as to changes of nationality, which was amended in 1921 (1921, c. 29, s. 3) and repealed in 1922 (1922, c. 20, s. 1), the right to vote was conferred by the new Act upon all British subjects, male and female, of 21 years and upwards, who had resided in Canada for a year, and for two months in the electoral district in which they desired to vote, this last restriction having been removed two years later (1922, c. 20), so far as it applied to general elections. The only adult British subjects who now are denied the right to vote are convicted prisoners, paupers in institutions, certain

[1] Contributed by Oliver Mowat Biggar, K.C., formerly Chief Electoral Officer.

Indians, judges appointed by the Dominion Government, persons paid for work on behalf of a candidate in relation to the election, persons expressly disfranchised for corrupt or illegal practices and certain persons who by reason of their race are not permitted, under the law of the province in which they live, to vote at a provincial election in that province. The effect of this last exception is to exclude from the franchise only such Chinese, Japanese and East Indians as reside in British Columbia, and did not serve in the Canadian forces during the war, and such Chinese as reside in the province of Saskatchewan and did not so serve.

The Use of the Franchise.—The number of voters on the lists and the number of votes polled at the general elections of 1917, 1921, 1925 and 1926, are given in Table 8.

8.—Number of Voters and Votes Polled in the General Elections of 1917, 1921, 1925 and 1926.

Provinces.	Number of Voters on the List.				Number of Votes Polled.			
	1917.	1921.	1925.	1926.	1917.	1921.	1925.	1926.
Prince Edward Is.	28,221	46,879	45,454	46,208	32,249	52,556	49,558	55,569
Nova Scotia	133,930	294,473	277,073	273,712	106,621	260,860	222,883	229,846
New Brunswick	94,456	204,575	211,190	210,028	84,408	156,263	152,652	162,777
Quebec	396,666	1,056,792	1,124,998	1,133,633	301,519	779,591	805,492	809,295
Ontario	904,075	1,738,020	1,821,906	1,847,512	710,077	1,139,635	1,223,027	1,226,267
Manitoba	138,029	255,143	250,505	257,244	109,542	173,941	171,124	198,028
Saskatchewan	133,806	333,613	346,791	353,471	99,253	225,236	197,246	246,460
Alberta	140,757	273,706	283,529	279,463	107,272	173,824	161,423	157,993
British Columbia	122,071	230,451	244,352	262,262	97,994	156,012	183,748	185,345
Yukon	1,788	1,658	1,621	1,848	1,442	1,388	1,259	1,482
Canada	**2,093,799**[1]	**4,435,310**	**4,607,419**	**4,665,381**[3]	**1,650,377**[2]	**3,119,306**	**3,168,412**	**3,273,062**

[1]Not including 31 electoral districts in which the return was by acclamation. Moreover, military voters were, generally speaking, not on the lists.
[2]Not including 31 electoral districts in which the return was by acclamation, and excluding 232,952 military votes.
[3]Not including one electoral district in which the return was by acclamation.

Section 2.—Provincial Governments.

Table 9 gives the names and areas, as in 1928, of the several provinces, territories and provisional districts of the Dominion, together with the dates of their creation or admission into the Confederation and the legislative process by which this was effected.

9.—Provinces and Territories of Canada, with present Areas, Dates of Admission to Confederation and Legislative Process by which this was effected.

Province, Territory or District.	Date of Admission or Creation.	Legislative Process.	Present Area (square miles).		
			Land.	Water.	Total.
Ontario	July 1, 1867	Act of Imperial Parliament—The British North America Act, 1867 (30-31 Vict., c. 3), and Imperial Order in Council of May 22, 1867.	365,880	41,382	407,262[1]
Quebec	" 1, 1867		583,895	10,539	594,434[2]
Nova Scotia	" 1, 1867		21,068	360	21,428
New Brunswick	" 1, 1867		27,911	74	27,985
Manitoba	" 15, 1870	Manitoba Act, 1870 (33 Vict., c. 3) and Imperial Order in Council, June 23, 1870	231,926	19,906	251,832[3]
British Columbia	" 20, 1871	Imperial Order in Council, May 16, 1871	353,416	2,439	355,855
P. E. Island	" 1, 1873	Imperial Order in Council, June 26, 1873	2,184	–	2,184
Saskatchewan	Sept. 1, 1905	Saskatchewan Act, 1905 (4-5 Edw. VII, c. 42)	240,200	11,500	251,700[4]
Alberta	" 1, 1905	Alberta Act, 1905 (4-5 Edw. VII, c. 3).	250,925	4,360	255,285[4]
Yukon	June 13, 1898	Yukon Territory Act, 1898 (61 Vict., c. 6)	206,427	649	207,076
Mackenzie	Jan. 1, 1920	Order in Council, March 16, 1918.	493,225	34,265	527,490[5]
Keewatin	" 1, 1920		218,460	9,700	228,160[5]
Franklin	" 1, 1920		546,532	7,500	554,032[5]
Total			**3,542,049**	**142,674**	**3,684,723**

[1] The area of Ontario was extended by the Canada (Ontario Boundary) Act, 1889, and the Ontario Boundaries Extension Act, 1912 (2 Geo. V, c. 40).

[2] Extended by Order in Council of July 6, 1896 (confirmed by c. 3, Acts of 1898), and Quebec Boundaries Extension Act, 1912 (2 Geo. V, c. 45), and diminished in consequence of the award of the Judicial Committee of the British Privy Council (March 1, 1927), whereby some 112,400 square miles of territory, formerly considered as part of Quebec, were transferred to the Government of Newfoundland.

[3] Extended by Extension of Boundaries of Manitoba Act, 1881, and Manitoba Boundaries Extension Act, 1912 (2 Geo. V, c. 32).

[4] Alberta and Saskatchewan now cover approximately the area formerly comprised in the districts of Assiniboia, Athabaska, Alberta and Saskatchewan, established May 17, 1882, by minute of Canadian P.C., concurred in by Dominion Parliament and Order in Council of Oct. 2, 1895.

[5] By an Order in Council of June 23, 1870, Rupert's Land, acquired under the Rupert's Land Acts of 1867 and 1868, and the undefined Northern Territories were admitted into the Confederation. The original Northwest Territories, mentioned in the Manitoba Act, 1870, were established by the Northwest Territories Act, 1880 (43 Vict., c. 25), the district of Keewatin having been previously defined by an Act of the Dominion Parliament (39 Vict., c. 21). The provisional districts of Yukon, Mackenzie, Franklin and Ungava were defined in an Order in Council of Oct. 2, 1895, their boundaries being changed by Order in Council of Dec. 18, 1897. By Order in Council of July 24, 1905, the area of Keewatin, not included in the Northwest Territories, was annexed to the latter from Sept. 1, 1905. By the Extension of Boundaries Act, 1912, Ungava was made a part of the province of Quebec, and the remaining area of the Northwest Territories south of 60° N. latitude was divided between Manitoba and Ontario.

In each of the provinces the King is represented by a Lieutenant-Governor appointed by the Governor-General in Council, and governing with the advice and assistance of his Ministry or Executive Council, which is responsible to the Legislature and resigns office when it ceases to enjoy the confidence of that body. The Legislatures of all the provinces with the exception of Quebec are now uni-cameral,[1] consisting of a Legislative Assembly elected by the people. In Quebec there is a Legislative Council as well as a Legislative Assembly. For detailed description of the Provincial Governments, the reader is referred to pp. 101-115 of the 1922-23 edition of the Year Book.

The Lieutenant-Governors of the provinces, together with the names of the Ministers of the present administrations, are given in Table **10**. Details regarding Provincial Legislatures and Ministries since Confederation were given on pp. 75-84 of the 1924 Year Book.

[1] The Legislative Council of Nova Scotia ceased to exist in 1928.

10.—Lieutenant-Governors of Provinces, 1867-1929, and present Ministries.

NOTE.—The Lieutenant-Governor of a province is styled "His Honour" and is also styled "Honourable" throughout his life.

PRINCE EDWARD ISLAND.

LIEUTENANT-GOVERNORS.

Name.	Date of Appointment.	Name.	Date of Appointment.
W. C. F. Robinson	June 10, 1873	P. A. MacIntyre	May 13, 1899
Sir Robert Hodgson	Nov. 22, 1873	D. A. McKinnon	Oct. 3, 1904
Thomas H. Haviland	July 14, 1879	Benjamin Rogers	June 1, 1910
Andrew Archibald Macdonald	Aug. 1, 1884	A. C. Macdonald	June 2, 1915
Jedediah S. Carvell	Sept. 21, 1889	Murdock McKinnon	Sept. 3, 1919
Geo. W. Howlan	Feb. 21, 1894	Frank R. Heartz	Sept. 8, 1924

FIFTEENTH MINISTRY.

Office.	Name.	Date of Appointment.
Premier, President of the Council, and Attorney-and Advocate-General	Hon. A. C. Saunders, K.C	Aug. 12, 1927
Provincial Secretary-Treasurer and Minister of Agriculture	Hon. W. M. Lea	Aug. 12, 1927
Minister of Public Works	Hon. J. P. McIntyre	Aug. 12, 1927
Minister without Portfolio	Hon. J. Blanchard	Aug. 12, 1927
Minister without Portfolio	Hon. B. W. LePage	Aug. 12, 1927
Minister without Portfolio	Hon. W. B. Butler	Aug. 12, 1927
Minister without Portfolio	Hon. J. F. McNeill, M.D	Aug. 12, 1927
Minister without Portfolio	Hon. P. Sinclair	Feb. 20, 1928
Minister without Portfolio	Hon. T. V. Grant, M.D	Sept. 20, 1928

NOVA SCOTIA.

LIEUTENANT-GOVERNORS.

Name.	Date of Appointment.	Name.	Date of Appointment.
Lieut.-Gen. Sir W. F. Williams	July 1, 1867	Sir Malachy Bowes Daly	July 29, 1895[1]
Major-Gen. Sir C. Hastings Doyle	Oct. 18, 1867	Alfred G. Jones	Aug. 7, 1900
Lieut.-Gen. Sir C. Hastings Doyle	Jan. 31, 1868[1]	Duncan C. Fraser	Mar. 27, 1906
Sir E. Kenny (acting)	May 31, 1870	James D. MacGregor	Oct. 18, 1910
Joseph Howe	May 1, 1873	David MacKeen	Oct. 19, 1915
Sir A. G. Archibald	July 4, 1873	McCallum Grant	Nov. 29, 1916
Matthew Henry Richey	July 4, 1883	McCallum Grant	Mar. 21, 1922[1]
A. W. McLelan	July 9, 1888	J. Robson Douglas	Jan. 23, 1925
Sir Malachy Bowes Daly	July 11, 1890	James C. Tory	Sept. 24, 1925

[1] Second term.

TENTH MINISTRY.

Office.	Name.	Date of Appointment.
Premier, President of Council and Provincial Secretary	Hon. E. N. Rhodes	July 16, 1925
Minister of Public Works and Mines	Hon. G. S. Harrington	July 16, 1925
Attorney-General	Hon. W. L. Hall	Aug. 18, 1926
Minister of Natural Resources	Hon. J. F. Mahoney	Nov. 3, 1928
Minister of Highways	Hon. P. C. Black	July 16, 1925
Minister without Portfolio	Hon. J. F. Fraser	July 16, 1925
Minister without Portfolio	Hon. O. P. Goucher	Nov. 3, 1928
Minister without Portfolio	Hon. John Doull	Nov. 3, 1928

10.—Lieutenant-Governors of Provinces, 1867-1929, and present Ministries—con.

NEW BRUNSWICK.

LIEUTENANT-GOVERNORS.

Name.	Date of Appointment.	Name.	Date of Appointment.
Major-Gen. Sir C. Hastings Doyle	July 1, 1867	A. R. McClelan	Dec. 9, 1896
Col. F. P. Harding	Oct. 18, 1867	Jabez B. Snowball	Feb. 5, 1902
L. A. Wilmot	July 14, 1868	L. J. Tweedie	Mar. 2, 1907
Samuel Leonard Tilley	Nov. 5, 1873	Josiah Wood	Mar. 6, 1912
E. Baron Chandler	July 16, 1878	G. W. Ganong	June 29, 1916
Robert Duncan Wilmot	Feb. 11, 1880	William Pugsley	Nov. 6, 1917
Sir Samuel Leonard Tilley	Oct. 31, 1885	William F. Todd	Feb. 24, 1923
John Boyd	Sept. 21, 1893	Major-Gen. Hugh H. McLean	Dec. 28, 1928
John A. Fraser	Dec. 20, 1893		

SEVENTEENTH MINISTRY.

Office.	Name.	Date of Appointment.
Premier and Attorney-General	Hon. J. B. M. Baxter	Sept. 14, 1925
President of Council	Hon. L. P. D. Tilley	Sept. 14, 1925
Minister of Public Works	Hon. D. A. Stewart	Sept. 14, 1925
Provincial Secretary-Treasurer	Hon. A. J. Leger	Sept. 14, 1925
Minister of Lands and Mines	Hon. C. D. Richards	Sept. 14, 1925
Minister of Agriculture	Hon. Louis Smith	Sept. 14, 1925
Minister of Health	Hon. H. I. Taylor	Sept. 14, 1925
Minister without Portfolio	Hon. E. A. Reilly	Sept. 14, 1925

QUEBEC.

LIEUTENANT-GOVERNORS.

Name.	Date of Appointment.	Name.	Date of Appointment.
Sir N. F. Belleau	July 1, 1867	L. A. Jetté	Feb. 2, 1903[1]
Sir N. F. Belleau	Jan. 31, 1868[1]	Sir Charles A. P. Pelletier	Sept. 4, 1908
Réné Edouard Caron	Feb. 11, 1873	Sir François Langelier	May 5, 1911
Luc Letellier de St.-Just	Dec. 15, 1876	Sir Pierre E. Leblanc	Feb. 9, 1915
Theodore Robitaille	July 26, 1879	Right Hon. Sir Charles Fitzpatrick	Oct. 21, 1918
L. F. R. Masson	Nov. 7, 1884	L. P. Brodeur	Oct. 31, 1923
A. R. Angers	Oct. 24, 1887	N. Perodeau	Jan. 8, 1924
Sir J. A. Chapleau	Dec. 5, 1892	Sir Lomer Gouin	Jan. 10, 1929
L. A. Jetté	Feb. 2, 1898		

[1] Second term.

SIXTEENTH MINISTRY.

Office.	Name.	Date of Appointment.
Premier, Attorney-General and Minister of Municipal Affairs	Hon. L. A. Taschereau	July 9, 1920
Minister of Agriculture	Hon. J. E. Caron	July 9, 1920
Minister of Lands and Forests	Hon. H. Mercier	July 9, 1920
Minister of Public Works and Labour	Hon. A. Galipeault	July 9, 1920
Minister of Colonization, Mines and Fisheries	Hon. J. E. Perrault	July 9, 1920
Provincial Secretary and Registrar	Hon. A. David	July 9, 1920
Minister of Roads	Hon. J. L. Perron	Sept. 27, 1921
Minister without Portfolio	Hon. E. Moreau	Sept. 20, 1921
Provincial Treasurer	Hon. J. Nicol	Nov. 23, 1921
Minister without Portfolio	Hon. L. Lapierre	June 4, 1924
Minister without Portfolio	Hon. J. H. Dillon	Jan. 10, 1927
Minister without Portfolio	Hon. Alfred Leduc	April 19, 1927

10.—Lieutenant-Governors of Provinces, 1867-1929, and present Ministries—con.

ONTARIO.

LIEUTENANT-GOVERNORS.

Name.	Date of Appointment.	Name.	Date of Appointment.
Major-General H. W. Stisted	July 1, 1867	Sir Oliver Mowat	Nov. 18, 1897
W. P. Howland	July 14, 1868	Sir William Mortimer Clark	April 20, 1903
John W. Crawford	Nov. 5, 1873	Sir John M. Gibson	Sept. 22, 1908
D. A. Macdonald	May 18, 1875	Lt.-Col. Sir John S. Hendrie	Sept. 26, 1914
John Beverly Robinson	June 30, 1880	Lionel H. Clarke	Nov. 27, 1919
Sir Alexander Campbell	Feb. 8, 1887	Col. Henry Cockshutt	Sept. 10, 1921
Sir George A. Kirkpatrick	May 30, 1892	William Donald Ross	Dec. 30, 1926

NINTH MINISTRY.

Office.	Name.	Date of Appointment.
Premier and Minister of Education	Hon. G. H. Ferguson	July 16, 1923
Minister of Public Works and Highways	Hon. Geo. S. Henry	July 16, 1923
Attorney-General	Hon. W. H. Price	Oct. 18, 1926
Minister of Mines	Hon. Charles McCrae	July 16, 1923
Minister of Public Health and Labour	Hon. Dr. Forbes Godfrey	July 16, 1923
Provincial Secretary	Hon. Lincoln Goldie	July 16, 1923
Minister of Agriculture	Hon. John S. Martin	July 16, 1923
Minister of Lands and Forests	Hon. Wm. Finlayson	Oct. 18, 1926
Provincial Treasurer	Hon. J. D. Monteith	Oct. 18, 1926
Minister without Portfolio	Hon. J. R. Cooke	July 16, 1923
Minister without Portfolio	Hon. Dr. Leeming Carr	July 16, 1923

MANITOBA.

LIEUTENANT-GOVERNORS.

Name.	Date of Appointment.	Name.	Date of Appointment.
A. G. Archibald	May 20, 1870	Sir D. H. McMillan	Oct. 16, 1900
Francis Goodschall Johnson	April 9, 1872	Sir D. H. McMillan	May 11, 1906[1]
Alexander Morris	Dec. 2, 1872	Sir D. C. Cameron	Aug. 1, 1911
Joseph Ed. Cauchon	Dec. 2, 1877	Sir James A. M. Aikins	Aug. 3, 1916
James C. Aikins	Sept. 22, 1882	Sir James A. M. Aikins	Aug. 7, 1921[1]
J. C. Schultz	July 1, 1888	Theodore A. Burrows	Oct. 9, 1926[2]
J. C. Patterson	Sept. 2, 1895	J. D. McGregor	Jan. 25, 1929

[1] Second term. [2] Died Jan. 18, 1929.

TWELFTH MINISTRY.

Office.	Name.	Date of Appointment.
Premier, President of the Council and Provincial Treasurer	Hon. John Bracken	Aug. 8, 1922 Jan. 12, 1925
Attorney-General	Hon. W. J. Major, K.C.	April 29, 1927
Minister of Public Works and Minister of Telephones and Telegraphs	Hon. W. R. Clubb	Aug. 8, 1922
Municipal Commissioner	Hon. D. L. McLeod	Aug. 8, 1922
Minister of Agriculture and Immigration and Railway Commissioner	Hon. A. Préfontaine	Jan. 12, 1925
Minister of Education	Hon. R. A. Hoey	April 21, 1927
Minister of Public Welfare	Hon. E. W. Montgomery, M.D.	July 12, 1928
Minister of Mines and Natural Resources, Provincial Secretary and Provincial Lands Commissioner	Hon. D. E. McKenzie	Oct. 22, 1928

10.—Lieutenant-Governors of Provinces, 1867-1929, and present Ministries—con.

SASKATCHEWAN.

LIEUTENANT-GOVERNORS.

Name.	Date of Appointment.	Name.	Date of Appointment.
A. E. Forget	Sept. 1, 1905	H. W. Newlands	Feb. 17, 1921
Geo. W. Brown	Oct. 5, 1910	H. W. Newlands	Feb. 22, 1926[1]
Sir Richard Stuart Lake	Oct. 6, 1915		

[1] Second term.

FOURTH MINISTRY.

Office.	Name.	Date of Appointment.
Premier, President of Council and Minister of Education	Hon. James G. Gardiner	Feb. 26, 1926
Provincial Secretary, Minister of Municipal Affairs and Minister in charge of the King's Printer's Office and Bureau of Publications	Hon. S. J. Latta	Feb. 26, 1926
Provincial Treasurer and Minister of Telephones	Hon. W. J. Patterson	Feb. 26, 1926
Attorney General	Hon. Thos. C. Davis, K.C.	Feb. 26, 1926
Minister of Public Health and Minister of Public Works	Hon. J. M. Uhrich, M.D.	Feb. 26, 1926
Minister of Agriculture and Minister in charge of the Child Welfare Act	Hon. Charles M. Hamilton	Feb. 26, 1926
Minister of Railways, Labour and Industries and Minister of Highways	Hon. George Spence	Dec. 15, 1927

ALBERTA.

LIEUTENANT-GOVERNORS.

Name.	Date of Appointment.	Name.	Date of Appointment.
George H. V. Bulyea	Sept. 1, 1905	Robert George Brett	Oct. 6, 1915
George H. V. Bulyea	Oct. 5, 1910[1]	Robert George Brett	Oct. 20, 1920[1]
		William Egbert	Oct. 20, 1925

[1] Second term.

FIFTH MINISTRY.

Office.	Name.	Date of Appointment.
Premier	Hon. J. E. Brownlee	Nov. 23, 1925
Provincial Secretary		June 25, 1926
Attorney-General	Hon. J. F. Lymburn	June 5, 1926
Provincial Treasurer	Hon. R. G. Reid	Nov. 3, 1923
Minister of Municipal Affairs		Nov. 23, 1925
Minister of Agriculture	Hon. Geo. Hoadley	Aug. 13, 1921
Minister of Public Health		Nov. 3, 1923
Minister of Railways and Telephones	Hon. Vernor W. Smith	Aug. 13, 1921
Minister of Public Works	Hon. O. L. McPherson	Dec. 31, 1926
Minister of Education	Hon. Perrin Baker	Aug. 13, 1921
Minister without Portfolio	Hon. Irene Parlby	Aug. 13, 1921

10.—Lieutenant-Governors of Provinces, 1867-1929, and present Ministries—concluded.

BRITISH COLUMBIA.

LIEUTENANT-GOVERNORS.

Name.	Date of Appointment.	Name.	Date of Appointment.
J. W. Trutch	July 20, 1871	James Dunsmuir	May 11, 1906
Albert Norton Richards	July 20, 1876	T. W. Paterson	Dec. 3, 1909
Clement F. Cornwall	July 20, 1881	Sir Frank S. Barnard	Dec. 5, 1914
Hugh Nelson	Feb. 8, 1887	Col. Edward G. Prior	Dec. 9, 1919
Edgar Dewdney	Nov. 1, 1892	Walter C. Nichol	Dec. 24, 1920
Thomas R. McInnes	Nov. 18, 1897	R. Randolph Bruce	Jan. 21, 1926
Sir Henry G. Joly de Lotbinière	June 21, 1900		

TWENTY-FIRST MINISTRY.

Office.	Name.	Date of Appointment.
Premier and Minister of Railways	Hon. S. F. Tolmie	Aug. 21, 1928
Provincial Secretary and Commissioner of Fisheries	Hon. S. L. Howe	Aug. 21, 1928
Attorney-General	Hon. R. H. Pooley, K.C.	Aug. 21, 1928
Minister of Lands	Hon. F. P. Burden	Aug. 21, 1928
Minister of Finance and Minister of Industries	Hon. W. C. Shelly	Aug. 21, 1928
Minister of Agriculture	Hon. William Atkinson	Aug. 21, 1928
Minister of Mines and Minister of Labour	Hon. W. A. McKenzie	Aug. 21, 1928
Minister of Public Works	Hon. N. S. Lougheed	Aug. 21, 1928
Minister of Education	Hon. J. Hinchliffe	Aug. 21, 1928
President of the Council	Hon. R. W. Bruhn	Aug. 21, 1928
Minister without Portfolio	Hon. R. L. Maitland, K.C.	Aug. 21, 1928

THE TERRITORIES.

NOTE.—In 1888 the districts of Alberta, Assiniboia, Athabaska and Saskatchewan, called the Northwest Territories, with their capital at Regina, were given local responsible government, and the old Northwest Council was replaced by the Northwest Legislature, which existed until Aug. 31, 1905. When the area approximately comprised within their limits was formed into the provinces of Alberta and Saskatchewan in 1905, these provinces were given systems of government similar to the other provinces of the Dominion. The remaining areas (the Yukon Territory and the provisional districts of Franklin, Keewatin and Mackenzie) are now administered by the Northwest Territories Branch of the Department of the Interior.

LIEUTENANT-GOVERNORS.

Name.	Date of Appointment.	Name.	Date of Appointment.
A. G. Archibald	May 10, 1870	Joseph Royal	July 1, 1888
Francis Goodschall Johnson	April 9, 1872	C. H. Mackintosh	Oct. 31, 1893
Alexander Morris	Dec. 2, 1872	M. C. Cameron	May 30, 1898
David Laird	Oct. 7, 1876	A. E. Forget	Oct. 11, 1898
Edgar Dewdney	Dec. 3, 1881	A. E. Forget	Mar. 30, 1904

[1] Second term.

PART IV.—CANADIAN REPRESENTATIVES IN OTHER COUNTRIES.

The policy of the early North American colonies, of maintaining in London accredited representatives for business and diplomatic purposes, was recognized in the eighteenth century as being a more satisfactory means of communication with the British Government than that provided by occasional official visits or by correspondence. Edmund Burke, the noted British statesman, held the position of agent for the colony of New York for some years following 1771. Of the Canadian

colonies, Nova Scotia was the first to adopt this plan, its Legislature having appointed an agent in London in 1761. New Brunswick was similarly represented in 1786, Upper Canada as early as 1794, Lower Canada in 1812 and British Columbia in 1857. For some years after 1845, several of the colonies were represented in London by Crown Agents, appointed by the Secretary of State, and paid by the colonies themselves. This system, however, was of but short duration.

The High Commissioner for Canada.—With the federation of the provinces of British North America in 1867, a new political entity which could not avail itself of the services of the provincial agents was brought into existence. To supplement the ordinary method of communication between the Canadian and British Governments (which at that time was by correspondence between the Governor-General and the Secretary of State for the Colonies, and now between the Secretary of State for External Affairs of Canada and the Secretary of State for Dominion Affairs in Great Britain), the position of High Commissioner for Canada was created in 1880 (see R.S.C. 1927, c. 92). The duties of the office are defined in the Act as follows:—

"The High Commissioner shall

"(*a*) act as representative and resident agent of Canada in Great Britain, and in that capacity, execute such powers and perform such duties as are, from time to time, conferred upon and assigned to him by the Governor in Council;

"(*b*) take the charge, supervision and control of the immigration offices and agencies in Great Britain, under the Minister of Immigration and Colonization;

"(*c*) carry out such instructions as he, from time to time, receives from the Governor in Council respecting the commercial, financial and general interests of Canada in Great Britain and elsewhere."

Sir Alexander Galt was the first Canadian High Commissioner, holding office from May 11, 1880, until May, 1883; in 1884 he was succeeded by Sir Charles Tupper. Lord Strathcona and Mount Royal was appointed in 1896. Sir George H. Perley took charge of the High Commissioner's Office in 1914 but was appointed High Commissioner only on Oct. 12, 1917. The present incumbent, Hon. P. C. Larkin, was appointed in February, 1922.

The office of the High Commissioner for Canada is in the Canadian Building, Trafalgar Square, London, S.W. 1.

His Majesty's Government in Great Britain in April, 1928, appointed a High Commissioner for Great Britain who resides in Ottawa, and whose position corresponds to that of the High Commissioner for Canada. This appointment was made in consequence of discussions at the Imperial Conference of 1926. The relevant passage in the report of the Inter-imperial Relations Committee runs as follows:—

"A special aspect of the question of consultation which we considered was that concerning the representation of Great Britain in the Dominions. By reason of his constitutional position, as explained in section IV (b) of this report, the Governor-General is no longer the representative of His Majesty's Government in Great Britain. There is no one therefore in the Dominion capitals in a position to represent with authority the views of His Majesty's Government in Great Britain.

"We summed up our conclusions in the following resolution which is submitted for the consideration of the Conference:—

> 'The Governments represented at the Imperial Conference are impressed with the desirability of developing a system of personal contact, both in London and in the Dominion capitals, to supplement the present system of intercommunication and the reciprocal supply of information on affairs requiring joint consideration. The manner in which any new system is to be worked out is a matter for consideration and settlement between His Majesty's Governments in Great Britain and the Dominions, with due regard to the circumstances of each particular part of the Empire, it being understood that any new arrangements should be supplementary to, and not in replacement of, the system of direct communication from Government to Government and the special arrangements which have been in force since 1918 for communications between Prime Ministers.'"

Canadian Minister in the United States.—For many years the diplomatic business between Canada and the United States has been steadily increasing, as the natural result of the proximity of the two countries and the closeness of the business relationships between their citizens. Before the Great War a former British Ambassador at Washington, Lord Bryce, said that between two-thirds and three-quarters of the work of the British Embassy in the United States was occasioned by Canadian affairs.

In January, 1918, a temporary Canadian War Mission was established at Washington under the chairmanship of Mr. Lloyd Harris, and was maintained for some years after the close of the war. Though not a formal diplomatic mission, its duties extended to questions usually dealt with through the diplomatic channel. After the retirement of this mission Canada was represented in Washington by Mr. M. M. Mahoney, who acted as agent of the Department of External Affairs, and, through the courtesy of the British Government, occupied an office at the British Embassy.

In 1920, following discussions between the British and Canadian Governments, it was announced that agreement had been reached upon the appointment of a Canadian Minister at Washington, who would act for the British Ambassador in the latter's absence. No appointment was made until Nov. 26, 1926, when, after decision to omit the arrangement that the Canadian Minister should substitute for the British Ambassador, Hon. Charles Vincent Massey was appointed as His Majesty's Envoy Extraordinary and Minister Plenipotentiary in the United States of America to represent the interests of the Dominion of Canada (P.C. 1780 of Nov. 10, 1926). Mr. Massey took up his duties in February, 1927.

The Canadian Legation in Washington is situated at 1746 Massachusetts Ave.

The United States Government reciprocated in 1927 by appointing Hon. William Phillips its first Minister to Canada.

Canadian Minister in France.—For many years the Canadian Government has maintained an agency at Paris. The post was first occupied in 1882 by Hon. Hector Fabre, who also represented for a time the Government of Quebec. After his death Hon. Philippe Roy was appointed in May, 1911, with the title of Commissioner-General of Canada in France. In 1928 an exchange of Ministers was agreed upon between Canada and France, and in September of that year Hon. Philippe Roy was appointed as His Majesty's Envoy Extraordinary and Minister Plenipotentiary in France to represent the interests of the Dominion of Canada.

The Canadian Legation in Paris is situated at No. 1, rue François premier.

The French Government has appointed M. Georges Jean Knight as its first Minister in Canada.

Canadian Legation in Tokio.—In 1928 an exchange of Ministers was agreed upon between the Governments of Canada and Japan, and Hon. H. M. Marler has been recommended to His Majesty the King for appointment as the first Canadian Minister in Japan.

Mr. Shuh Tomii, previously Consul-General of Japan at Ottawa, has been appointed Chargé d'Affaires of the Japanese Legation in Canada pending completion of the exchange of Ministers.

Canadian Advisory Officer, League of Nations.—The precedent of appointing permanent representatives at Geneva accredited to the League of Nations was set, it is understood, by Japan, and has found favor especially among those nations which are situated at a distance from Geneva. It was found that, while countries adjacent to the seat of the League were able without difficulty to include in the personnel of their delegations to the Assembly and Council various advisers and assistants at a minimum of expense, distant countries were at a disadvantage in this respect. Canada's duties as a member of the Assembly and of the International Labor Conference, and as one of the eight countries represented on the Governing Body of the International Labor Office, made this disadvantage especially felt. Accordingly the position of Dominion of Canada Advisory Officer, League of Nations, was created by Order-in-Council P.C. 2174 of Dec. 17, 1924, and Dr. W. A. Riddell was appointed to the post on Jan. 1, 1925.

The duties of the Canadian Advisory Officer are "to establish and maintain as close relations as possible with the Secretariats of the League of Nations and the International Labor Office", to "communicate with the Government of Canada as to all matters arising and requiring its attention", and to "act in all such matters in an advisory capacity to the Government of Canada and to delegates from the Government of Canada to conferences arising out of the organisations before named".

The office of the Canadian Advisory Officer is situated at 41, Quai Wilson, Geneva.

Agents-General.—The older provinces of Nova Scotia, Quebec, Ontario and British Columbia still adhere to the practice of former days and are represented in London by Agents-General. These officials are appointed by the Legislatures of the provinces under general authority given in the British North America Act and act for their Governments in capacities very similar to that of the High Commissioner, with the exception, perhaps, that their duties have tended to become of a business rather than a diplomatic nature.

CHAPTER IV.—POPULATION.

The Population chapter of the Year Book contains a *précis* of the results of investigations into the number and the constitution of the population made in the censuses of Canada since Confederation, summarizing the growth and distribution of population between 1871 and 1921, as shown by the successive decennial censuses, in regard to the chief matters investigated at the censuses.

The modern census, now established in all civilized countries as the chief method of measuring periodically the population and its social and economic phenomena, has been described by a modern United States writer as the greatest single peace-time activity in which the government engages, both in respect of the physical extent of its organization and the important part which its results play in the general administration of public affairs.

Under the Canadian constitution, the legal *raison d'être* of the census is to determine representation in the House of Commons; after each decennial census a redistribution of seats in the House, following the course of the movement of population, is made in the manner described on pp. 69 to 72 of this volume. (See also pp. 72-74 of the 1924 Year Book.) But the census, especially since the introduction of methods of mechanical tabulation, has become far more than a counting of heads; it is a great periodical stock-taking of the people and their affairs, designed to show as fully as possible the stage which has been reached in the progress of the nation. Thus the numbers, local distribution, age, sex, racial origin, nationality, language, religion, education, housing and occupations of the people, severally constitute investigations of enormous importance, to which all the continuous and routine statistics collected in the ordinary course of administration must be related if their importance is to be realized. The census, in fine, rounds out and completes the scheme of information upon which the government relies in conducting the affairs of the country.

On account of the requirements as to parliamentary representation and the payment of provincial subsidies, which are based on population, the Canadian census is taken on the *de jure* principle; *i.e.*, each person is counted as belonging to the locality in which he is regularly domiciled, irrespective of where he may be at the date of the enumeration. Under the *de facto* method each individual is counted as belonging to the locality where he is found on the census date. The *de facto* method is undoubtedly simpler, but the *de jure* plan better portrays the permanent condition of the population. The chief difficulty in its application is found in connection with holiday resorts, in the segregation of "visitors" and the tracing of "absentees"; a date prior to the opening of the holiday season is accordingly chosen for the date of the census. In the Canadian procedure, students and inmates of hospitals are assigned to their home localities, while inmates of prisons, jails, etc., are counted where found.

Section 1.—Census Statistics of General Population.

Since the creation of the Dominion of Canada in 1867, decennial censuses have been taken on the *de jure* plan as of the dates April 2, 1871, April 4, 1881, April 5, 1891, April 1, 1901, June 1, 1911, and June 1, 1921. The population of Canada and its percentage distribution as on these dates, together with the absolute and percentage increases from decade to decade, are given in Tables 1 to 4 immediately following.

1.—Population of Canada by Provinces and Territories in the census years 1871 to 1921.[1]

Provinces or Territories.	1871.	1881.	1891.	1901.	1911.	1921.
Prince Edward Island	94,021	108,891	109,078	103,259	93,728	88,615
Nova Scotia	387,800	440,572	450,396	459,574	492,338	523,837
New Brunswick	285,594	321,233	321,263	331,120	351,889	387,876
Quebec	1,191,516	1,359,027	1,488,535	1,648,898	2,005,776[2]	2,361,199
Ontario	1,620,851	1,926,922	2,114,321	2,182,947	2,527,292[2]	2,933,662
Manitoba	25,228	62,260	152,506	255,211	461,394[2]	610,118
Saskatchewan	–	–	–	91,279	492,432	757,510
Alberta	–	–	–	73,022	374,295[3]	588,454
British Columbia	36,247	49,459	98,173	178,657	392,480	524,582
Yukon Territory	–	–	–	27,219	8,512	4,157
Northwest Territories[4]	48,000	56,446	98,967	20,129	6,507[2]	7,988
Royal Canadian Navy	–	–	–	–	–	485
Total	**3,689,257**	**4,324,810**	**4,833,239**	**5,371,315**	**7,206,643**	**8,788,483**

2.—Percentage Distribution of Canadian Population by Provinces and Territories, 1871 to 1921.

Provinces or Territories.	1871.	1881.	1891.	1901.	1911.	1921.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Prince Edward Island	2·55	2·52	2·25	1·92	1·30	1·01
Nova Scotia	10·51	10·19	9·32	8·56	6·83	5·96
New Brunswick	7·74	7·43	6·65	6·16	4·88	4·41
Quebec	32·30	31·42	30·80	30·70	27·83	26·87
Ontario	43·94	44·56	43·74	40·64	35·07	33·38
Manitoba	0·68	1·44	3·16	4·75	6·40	6·94
Saskatchewan	–	–	–	1·70	6·84	8·62
Alberta	–	–	–	1·36	5·19	6·70
British Columbia	0·98	1·14	2·03	3·33	5·45	5·97
Yukon Territory	–	–	–	0·51	0·12	0·05
Northwest Territories[4]	1·30	1·30	2·05	0·37	0·09	0·09
Royal Canadian Navy	–	–	–	–	–	–
Total	**100·0**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**

3.—Population of Canada by Provinces and Territories in 1871 and 1921, and numerical increase in each decade from 1871 to 1921.

Provinces or Territories.	Population in 1871.	Increase in each decade from 1871 to 1921.					Population in 1921.	Increase, 1871 to 1921.
		1871 to 1881.	1881 to 1891.	1891 to 1901.	1901 to 1911.	1911 to 1921.		
P.E. Island	94,021	14,870	187	−5,819	−9,531	−5,113	88,615	−5,406
Nova Scotia	387,800	52,772	9,824	9,178	32,764	31,499	523,837	136,037
New Brunswick	285,594	35,639	30	9,857	20,769	35,987	387,876	102,282
Quebec	1,191,516	167,511	129,508	160,363	356,878	355,423	2,361,199	1,169,683
Ontario	1,620,851	306,071	187,399	68,626	344,345	406,370	2,933,662	1,312,811
Manitoba	25,228	37,032	90,246	102,705	206,183	148,724	610,118	584,890
Saskatchewan	–	–	–	91,279	401,153	265,078	757,510	757,510
Alberta	–	–	–	73,022	301,273	214,159	588,454	588,454
British Columbia	36,247	13,212	48,714	80,484	213,823	132,102	524,582	488,335
Yukon Territory	–	–	–	27,219	−18,707	−4,355	4,157	4,157
Northwest Territories[4]	48,000	8,446	42,521	−78,838	−13,622	1,481	7,988	−40,012
Royal Canadian Navy	–	–	–	–	–	485	485	485
Canada	**3,689,257**	**635,553**	**508,429**	**538,076**	**1,835,328**	**1,581,840**	**8,788,483**	**5,099,226**

[1]The population of the Prairie Provinces in 1903, 1916 and 1926 is shown on pp. 148-150 of this volume. [2]As corrected as a result of the Extension of Boundaries Act, 1912. [3]As corrected by transfer of population of Fort Smith (368) to Northwest Territories. [4]The decrease shown in the population of the Northwest Territories after 1891 is due to the separation therefrom of vast areas to form Alberta, Saskatchewan and the Yukon Territory, and to extend the boundaries of Quebec, Ontario and Manitoba.

4.—Population of Canada by Provinces and Territories in 1871, and increase per cent by decades from 1871 to 1921.

Provinces or Territories.	Population in 1871.	Per cent increase by decades from 1871 to 1921.					Per cent increase in 50 years.
		1871 to 1881.	1881 to 1891.	1891 to 1901.	1901 to 1911.	1911 to 1921.	
		p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Prince Edward Island	94,021	15·82	0·17	−5·33	−9·23	−5·46	−5·75
Nova Scotia	387,800	13·61	2·23	2·04	7·13	6·40	35·08
New Brunswick	285,594	12·48	0·01	3·07	6·27	10·23	35·82
Quebec	1,191,516	14·06	9·53	10·77	21·64	17·72	98·17
Ontario	1,620,851	18·88	9·73	3·25	15·77	16·08	80·99
Manitoba	25,228	146·79	144·95	67·34	80·79	32·23	2,318·42
Saskatchewan	–	–	–	–	439·48	53·83	–
Alberta	–	–	–	–	412·58	57·22	–
British Columbia	36,247	36·45	98·49	81·98	119·68	33·66	1,347·24
Yukon Territory	–	–	–	–	−68·73	−51·16	–
Northwest Territories[1]	48,000	17·60	75·33	−79·66	−67·67	22·76	−83·36
Canada	**3,689,257**	**17·23**	**11·76**	**11·13**	**34·17**	**21·95**	**138·22**

[1]The decreases shown in the population of the Northwest Territories since 1891 are due to the separation therefrom of immense areas to form the provinces of Alberta and Saskatchewan and the Yukon Territory, as well as to extend the boundaries of the older provinces of Quebec, Ontario and Manitoba.

Early Censuses.—The credit of taking the first census of modern times belongs to Canada. The year was 1665, the census that of the colony of New France. Still earlier records of settlement at Port Royal (1605) and Quebec (1608) are extant; but the census of 1665 was a systematic "nominal" enumeration of the people, taken on the *de jure* principle, on a fixed date, showing age, sex, occupation and conjugal and family condition. A supplementary inquiry in 1667 included the areas under cultivation and the numbers of sheep and cattle. When it is recalled that in Europe the first census dates only from the eighteenth century (those of France and England from the first year of the nineteenth) and that in the United States the census begins only with 1790, the achievement of the primitive St. Lawrence colony in instituting what is to-day one of the principal instruments of government may call for more than passing appreciation.

The census of 1665 (the results of which occupy 154 pages in manuscript, still to be seen in the Archives in Paris, with a transcript at Ottawa) showed some 3,215 souls. It was repeated at intervals more or less regularly for a hundred years. By 1685 the total had risen to 12,263, including 1,538 Indians collected in villages. By the end of the century it had passed 15,000, and this was doubled in the next twenty-five years. Not to present further details, some of which will be found in the Chronology on pp. 53 to 61, it may be said that at the time of the cession (1763) the population of New France was about 70,000, whilst another 10,000 French (thinned to these proportions by the expulsion of the Acadians) were scattered through what is now Nova Scotia, New Brunswick and Prince Edward Island. The British population of Nova Scotia was at this time about 9,000.

After the cession, our chief sources of statistics for half a century and more are the reports of colonial governors—more or less sporadic—though censuses of the different sections under British rule were taken at irregular intervals. British settlement on a substantial scale in the Gulf Provinces and in Ontario dates only from the Loyalist movement which followed the American Revolution, at the end of which, *i.e.*, about the year of the Constitutional Act (1791), the population of Lower Canada was approximately 163,000, whilst the newly constituted province of Upper Canada under Lieutenant-Governor Simcoe numbered perhaps 15,000,

and the addition of the maritime colonies brought the total to well over 200,000. A decade later Canada began the nineteenth century with a population of probably not less than 250,000 or 260,000. Subsequent censuses gave the population of the different colonies as follows:—Upper Canada (1824) 150,069, (1840) 432,159; Lower Canada (1822) 427,465, (1844) 697,084; New Brunswick (1824) 74,176, (1840) 156,162; Nova Scotia (1817) 81,351, (1838) 202,575; Prince Edward Island (1822) 24,600, (1841) 47,042.[1]

The policy of desultory census-taking was ended in 1847 by an Act of the Canadian Legislature creating a "Board of Registration and Statistics", with instructions "to collect statistics and adopt measures for disseminating or publishing the same", and providing also for a decennial census. The first census thereunder was taken in 1851, and as similar censuses were taken by New Brunswick and Nova Scotia in the same year, we have a regular measure of population growth in Canada over the past seventy years. The fifties saw a very rapid development, especially in Ontario, whilst the sixties showed only less substantial gains. In the years following Confederation, again, there was a spurt, the increase between 1871 and 1881 (which included several lean years towards the end) being 635,553, or 17·23 p.c. In neither of the last two decades of the nineteenth century, however, was this record equalled, either absolutely or relatively, the gains in each being under 550,000, or 12 p.c. With the end of the century the population of Canada had reached approximately five and a quarter millions, or twenty times that of 1800.

Expansion in the Twentieth Century.—It is within the confines of the present century that the most spectacular expansion of the Canadian population has taken place. The outstanding feature was, of course, the opening to settlement of the "last best West". The unorganized territories of British North America had been ceded to the Dominion soon after Confederation, and the West had been tapped and traversed by the Canadian Pacific Railway in the eighties and nineties. But though western population was doubled in each of these decades, it was only with the launching of a large-scale immigration movement after 1900 that western settlement and production became a first-rate economic factor. Simultaneously an almost equally striking development occurred in the industrial centres of Eastern Canada, which formed the immediate basis for the move upon the West. At the back, of course, was the heavy inflow of British and other capital—a total of two and a half billions of dollars within a dozen years—which went to finance the large constructive undertakings (chiefly railway and municipal) which characterized the movement, and which represented at bottom the traditional policy of England in search of cheap and abundant food for her workshop population. The years 1901 to 1911, in brief, form the *decas mirabilis* of Canadian expansion. The immigration movement just mentioned, which had previously run well under 50,000 per annum, rose rapidly to over five times that volume, eventually passing 400,000 in a single year. In the ten years 1901 to 1911 it totalled over 1,800,000, and though at least a third of these were lost (partly in the return to Europe of labour temporarily attracted by the railway and other developments in progress, and partly in the never-ceasing and natural "drag" of the United States upon a virile and less wealthy people), it formed the chief factor in the gain of 34 p.c. which the total population of Canada registered in that decade, and which was larger than the relative growth of any other country during the same period. The movement was continued and

[1] A *résumé* of the results of all the censuses taken in Canada between 1665 and 1861 was published as Vol. IV of the Census of 1871.

even intensified in the first three years of the second decade of the century, after which a recession set in to which the outbreak of war gave a new and wholly unexpected turn. Nevertheless the decade which closed with the census of 1921 again showed over 1,800,000 immigrant arrivals in Canada, and though the proportionate loss of these was very heavy (probably as much as two-thirds), Canada's relative gain for the decade was again among the largest in the world.

The Census of 1921.—According to the final results of the 1921 census, the total population of the Dominion on June 1, 1921, was 8,788,483, as compared with 7,206,643 on June 1, 1911, an increase of 1,581,840 or 21·95 p.c. in the decade, as compared with 34·17 p.c. during the decade from 1901 to 1911. Reduced as is the rate of increase during the last ten years, it is higher than the rate of increase in any other of the principal countries of the British Empire except Australia, where the rate was only slightly greater, and considerably higher than that of the United States.

The countries which comprise the British Empire, as also the United States, have on the whole suffered much less in actual loss of life from the war and its consequences than have the continental countries of Europe. None of them has actually declined in population during the period, as many continental European countries have done. Their percentage increases, however, have in almost all cases been lower than in the previous decade. Thus the population of England and Wales increased between 1911 and 1921 only from 36,070,492 to 37,885,242, or 4·93 p.c., as compared with an increase of 10·89 p.c. in the previous decade; Scotland, again, increased only from 4,760,904 to 4,882,288, or 2·5 p.c., as compared with 6·5 p.c. between 1901 and 1911.

Of the overseas Dominions, New Zealand increased from 1,008,468 to 1,218,270 or 20·8 p.c., as compared with 30·5 p.c., while the white population of South Africa increased from 1,276,242 to 1,522,442 or 19·3 p.c. On the other hand, the Commonwealth of Australia, the only Dominion to grow more rapidly in the second decade of the twentieth century than in the first, increased from 4,455,005 in 1911 to 5,436,794 in 1921, or 22·04 p.c. as compared with 18·05 p.c. The population of the continental United States increased between 1910 and 1920 from 91,972,266 to 105,710,620, an increase of 14·9 p.c., as compared with 21 p.c. in the preceding decade.

Considering now the Dominion of Canada itself, it becomes evident from Table 1 that in this country, as formerly in the United States, there is a distinct movement of population from East to West. In the decade from 1911 to 1921 there occurred in the four western provinces an increase of population from 1,720,601 to 2,480,664, or 44·2 p.c., while the five eastern provinces increased from 5,471,023 to 6,295,189, an increase of 824,166 persons, which, though absolutely larger than the figure for the West, constitutes an increase of only 15 p.c. over the 1911 population. The same conclusion may be deduced from Table 2, which shows that while in 1871 only 2·96 p.c., and in 1881 only 3·88 p.c. of the population of the country dwelt west of the lake of the Woods, the percentage in 1891 was 7·24, in 1901, 12·02, in 1911, 24·09, and in 1921, 28·37. On the other hand, the three eastern Maritime Provinces, which in 1871 contained 20·80 p.c. of the population of the Dominion, had in 1881, 20·14 p.c., in 1891, 18·22 p.c., in 1901, 16·64 p.c., in 1911, 13·01 p.c. and in 1921 only 11·38 p.c. of the population. Ontario and Quebec—the old pre-Confederation Province of Canada—still remain the chief centre of population, their population being in 1921 60·25 p.c. of the total, as compared

with 76·24 p.c. in 1871, 75·98 p.c. in 1881, 74·54 p.c. in 1891, 71·34 p.c. in 1901 and 62·90 p.c. in 1911. In other words, the net result of the half century has been that in 1921 only three-fifths of the population of the Dominion lived in these provinces, as compared with more than three-fourths in 1871.

In 1881 the "centre" of population east and west was in the county of Prescott, Ontario, not far from Caledonia village. In 1891 it had moved west to the vicinity of Ottawa, where it remained in 1901. In 1911 the county of Victoria, Ontario, contained the centre, and it was in Parry Sound district, Ontario, in 1921.

The populations of the several provinces and electoral districts of Canada, as these districts existed in 1921, were given on pp. 87-91 of the 1925 Year Book, while the 1921 populations of the electoral districts as constituted after the redistribution of 1924 will be found at pp. 72-76 of this volume, together with the names of their representatives in the sixteenth Parliament. Populations for smaller areas (sub-districts, etc.) are given in the great table extending from page 11 to page 218 of Vol. I of the Census of 1921.

Density of Population.—The density of population in 1921 (*i.e.*, the number of persons per square mile of the land area as in that year), is shown by provinces and for the country as a whole in Table 5. Generally speaking, the density of population decreases as one travels westward, but the enormous area of the province of Quebec reduced the density of its population to the low figure of 3·42. As among the nine provinces, the density of population is greatest in Prince Edward Island and least in British Columbia.

5.—Density of Population in Canada, by Provinces and Territories, 1911 and 1921.

Provinces.	1911.	1921.	Provinces.	1911.	1921.
Prince Edward Island	42·91	40·56	Saskatchewan	2·02	3·12
Nova Scotia	23·37	24·86	Alberta	1·48	2·33
New Brunswick	12·61	13·90	British Columbia	1·11	1·48
Quebec	2·90	3·42	Yukon Territory	0·04	0·02
Ontario	6·91	8·02	Northwest Territories	0·005	0·006
Manitoba	1·99	2·63	**Canada**	1·97	2·41

Elements of Growth.—The former lack of comprehensive and comparable vital statistics for the whole of Canada, together with the lack of statistics of emigration, makes it difficult to determine how far the growth of population since the commencement of the twentieth century is due to natural increase and how far to immigration. The following estimate (Table 6) may, however, be of interest. During the last decade, in addition to some 60,000 Canadians who died overseas and nearly 20,000 who took their discharge in the United Kingdom, there were also great numbers of residents of Canada—most of them recent immigrants—who left Canada to join the forces of the Mother Country and her allies in the Great War and did not return. The estimated figure given for emigration in the decade 1911-1921 may therefore be regarded as of a distinctly abnormal character.

6.—Movement of Population, including estimated Natural Increase, recorded Immigration and estimated Emigration, for the intercensal periods 1901-1911 and 1911-1921.

Decades and Items.	No.
Decade 1901-1911—	
Population, Census of April 1, 1901	5,371,315
Natural increase (1901-1911), estimated	853,566
Immigration (April 1, 1901, to May 31, 1911)	1,847,651
Total	8,072,532
Population, Census of June 1, 1911	7,206,643
Emigration (April 1, 1901, to May 31, 1911), estimated	865,889
Decade 1911-1921—	
Population, Census of June 1, 1911	7,206,643
Natural increase (1911-1921), estimated	1,150,659
Immigration (June 1, 1911, to May 31, 1921)	1,728,921
Total	10,086,223
Population, Census of June 1, 1921	8,788,483
Emigration (June 1, 1911, to May 31, 1921), estimated	1,297,740 [1]
Net gain in population, 1901-1911	1,835,328
Net gain in population, 1911-1921	1,581,840

[1] This figure includes also the 60,000 Canadian lives lost at the front and the soldiers (about 20,000) enlisting in the Canadian forces and receiving their discharge in the United Kingdom.

Annual Estimates of Population, 1922-28.—While the populations in different countries are actually counted at decennial or quinquennial censuses, annual estimates of populations are required by modern states for many purposes, such as the calculation of birth, death and marriage rates, and of per capita figures of production, trade, finance, consumption, etc. In different countries various methods of obtaining annual figures of post-censal populations are adopted. For example, in countries so far distant from the other civilized countries of the world as Australia and New Zealand, it is possible, with good vital statistics and records of the comparatively few arrivals and departures, to obtain the actual population at any particular date with approximate accuracy by the simple method of adding births and arrivals and subtracting deaths and departures during the period elapsed since the census. For Canada, on account of her 4,000 miles of common boundary line with the United States, crossed every day by many thousands of people in either direction, this method is impracticable; consequently our annual figure of population must be an estimate pure and simple. This indeed is the case in almost all civilized countries, though their methods of making the estimates vary.

Thus, the method of arithmetical progression is widely used in the older countries of the world, and also in the United States; this method involves the annual addition to the population of the country and of particular areas within it of one-fifth or one-tenth of the numerical increase in the last quinquennial or decennial intercensal period. This method is not yet applicable to Canada, where immigration is still relatively but variably heavy and the growth of population rapid. The method of geometrical progression, involving the addition each year to the population of a certain percentage of the population at the commencement of that year, is also generally inapplicable to Canada, as in only two decades since 1871 has the application of this method given approximately accurate results.

In making the estimates of Canadian population, the Bureau of Statistics has adopted the method of fitting a series of curves to the populations of the different provinces, as ascertained at the six decennial censuses since 1871, using the curve

which is found on trial to fit the population-history of the province, and adding the results for the provinces to obtain the population of the Dominion.

The estimated population of each province for each year since 1921 is given in Table 7. The mathematical formulas used in obtaining the estimate for each province may be obtained on application to the Dominion Statistician. Since the estimates are of a mathematical character, based upon the experience of half a century, they show the normal situation, not necessarily the actual situation at a particular point of time. In such a table of normal growth, good years are not credited with their full addition to the population, while bad years receive more credit than is their due. Nevertheless, the table is believed to represent approximately the broad facts of the situation.

7.—Census Population of Canada, by Provinces, as at June 1, 1921, with Estimated Populations as at June 1, 1922-1928.[2]

Provinces.	Census population 1921.	Estimates.						
		1922.	1923.	1924.	1925.	1926.	1927.	1928.
P. E. I.	88,615	88,400	88,020	87,700	87,300	87,000	86,700	86,400
Nova Scotia	523,837	527,100	530,000	533,600	536,900	540,000	543,000	547,000
New Brunswick	387,876	391,700	395,500	399,400	403,300	407,200	411,000	415,000
Quebec	2,361,199	2,400,000	2,439,000	2,480,000	2,520,000	2,561,800	2,604,000	2,647,000
Ontario	2,933,662	2,976,000	3,019,000	3,062,000	3,103,000	3,145,600	3,187,000	3,229,000
Manitoba	610,118	615,600	621,200	626,800	632,400	639,056[1]	647,000	655,000
Saskatchewan	757,510	770,600	783,700	796,800	809,900	820,738[1]	836,000	851,000
Alberta	588,454	592,200	595,900	599,600	603,300	607,599[1]	617,000	631,900
British Columbia	524,582	535,000	544,000	553,000	560,500	568,400	575,000	583,000
Yukon	4,157	3,800	3,600	3,550	3,500	3,450	3,470	3,500
N. W. T.	7,988	8,150	8,320	8,490	8,600	8,850	9,050	9,200
Canada	8,788,483	8,908,550	9,028,240	9,150,940	9,268,700	9,389,693	9,519,220	9,658,000

[1]Figures of the quinquennial census of the Prairie Provinces, 1926.

[2]For estimated population of Canada in each year back to 1867, see Table 6 in Chapter XXI.

Section 2.—Sex Distribution.

Throughout the older countries of the world there is usually found an excess of female over male population, more especially as in most of these countries the census is taken on a *de facto* instead of, as in Canada, on a *de jure* basis. The causes of this excess of female population are:—(1) the normally higher rate of mortality among males; (2) the greater number of males who travel; (3) the effects of war; (4) the employment of males in the army, navy, and merchant marine; and (5) the preponderance of males among emigrants. In the newer countries of the world, however, the last of these causes results in a general excess of male over female population. Both of these phenomena are exemplified in the statistics of Table **10.**

In Canada there has been such an excess of male population from the commencement of its history, the first census of 1665 showing 2,034 males to only 1,181 females. As the colony increased in numbers, the disproportion between the sexes decreased, more especially since the French-Canadian population after about 1680 was not reinforced by immigration from the old world. In 1784, when the English-speaking immigration to Canada for purposes of settlement was commencing, there were 54,064 males and 50,759 females in the country. At the middle of the nineteenth century there were 449,967 males to 440,294 females in Lower Canada, and 499,067 males to 452,937 females in the more newly-settled

Upper Canada, and since Confederation the same phenomenon of a considerable excess of males has occurred throughout the growing Northwest. The great immigration of the first decade of the present century resulted in raising what is called the "masculinity" of the Canadian population (*i.e.*, the excess of males over females per 100 of population) to the highest point in recent history, *viz.* 6·07 in 1911. The great war, however, both checked immigration and took some 60,000 young Canadian male lives as its toll, with the result that at the census of 1921 the masculinity of our population was only 3 p.c.—515 males to 485 females per 1,000 of population. Thus masculinity in the country as a whole and also in all the provinces except Prince Edward Island, has been since 1911 on the decline—a phenomenon which must be regarded with satisfaction, since an approximation to equality in the numbers of the sexes is desirable both in the interests of morality and also as promotive of the birth rate (an important consideration in a country where the density of population is only 2·41 to the square mile). In Table 8 statistics are presented showing the number of males and females in each of the provinces and territories at each census since 1871, while Table 9 shows the proportion of the sexes and excess of males per 1,000 of population. The statistics of Table **10** show the position of Canada among other countries of the world in regard to masculinity. A detailed treatment of the sex distribution of the population will be found on pages 245-342 of Vol. I of the Census of 1921.

8.—Sex Distribution of the People of Canada, by Provinces, 1871-1921.

Provinces.	1871.		1881.		1891.	
	Male.	Female.	Male.	Female.	Male.	Female.
Prince Edward Island	47,121	46,900	54,729	54,162	54,881	54,197
Nova Scotia	193,792	194,008	220,538	220,034	227,093	223,363
New Brunswick	145,888	139,706	164,119	157,114	163,739	157,524
Quebec	596,041	595,475	678,175	680,852	744,141	744,394
Ontario	828,590	792,261	978,554	948,368	1,069,487	1,044,834
Manitoba	12,864	12,364	35,123	27,137	84,342	68,164
Saskatchewan	–	–	–	–	–	–
Alberta	–	–	–	–	–	–
British Columbia	20,694	15,553	29,503	19,956	63,003	35,170
Yukon Territory	–	–	–	–	–	–
Northwest Territories	24,274	23,726	28,113	28,333	53,785	45,182
Total	**1,869,264**	**1,819,993**	**2,188,854**	**2,135,956**	**2,460,471**	**2,372,768**

Provinces.	1901.		1911.		1921.	
	Male.	Female.	Male.	Female.	Male.	Female.
Prince Edward Island	51,959	51,300	47,069	46,659	44,887	43,728
Nova Scotia	233,642	225,932	251,019	241,319	266,472	257,365
New Brunswick	168,639	162,481	179,867	172,022	197,351	190,525
Quebec	824,454	824,444	1,012,815	992,961	1,180,028	1,181,171
Ontario	1,096,640	1,086,307	1,301,272	1,226,020	1,481,890	1,451,772
Manitoba	138,504	116,707	252,954	208,440	320,567	289,551
Saskatchewan	49,431	41,848	291,730	200,702	413,700	343,810
Alberta	41,019	32,003	223,792	150,503	324,208	264,246
British Columbia	114,160	64,497	251,619	140,861	293,409	231,173
Yukon Territory	23,084	4,135	6,508	2,004	2,819	1,338
Northwest Territories	10,176	9,953	3,350	3,157	4,129	3,859
Royal Canadian Navy	–	–	–	–	485	–
Total	**2,751,708**	**2,619,607**	**3,821,995**	**3,384,648**	**4,529,945**	**4,258,538**

9.—Proportion of the Sexes per 1,000 of Population in Canada, by Provinces, 1871-1921.

Provinces.	1871.			1881.			1891.		
	Males.	Females.	Excess of Males over Females.	Males.	Females.	Excess of Males over Females.	Males.	Females.	Excess of Males over Females.
Prince Edward Island	501	499	2	503	497	6	504	496	8
Nova Scotia	500	500	–	501	499	2	504	496	8
New Brunswick	511	489	22	511	489	22	510	490	20
Quebec	500	500	–	499	501	–2	500	500	–
Ontario	511	489	22	508	492	16	506	494	12
Manitoba	510	490	20	564	436	128	553	447	106
Saskatchewan	–	–	–	–	–	–	–	–	–
Alberta	–	–	–	–	–	–	–	–	–
British Columbia	571	429	142	597	403	194	642	358	284
Yukon Territory	–	–	–	–	–	–	–	–	–
Northwest Territories	506	494	12	498	502	–4	543	457	86
Canada	**507**	**493**	**14**	**506**	**494**	**12**	**509**	**491**	**18**

Provinces.	1901.			1911.			1921.		
	Males.	Females.	Excess of Males over Females.	Males.	Females.	Excess of Males over Females.	Males	Females	Excess of Males over Females.
Prince Edward Island	503	497	6	502	498	4	507	493	14
Nova Scotia	508	492	16	510	490	20	509	491	18
New Brunswick	509	491	18	511	489	22	509	491	18
Quebec	500	500	–	505	495	10	500	500	–
Ontario	502	498	4	515	485	30	505	495	10
Manitoba	543	457	86	548	452	96	525	475	50
Saskatchewan	541	459	82	592	408	184	546	454	92
Alberta	562	438	124	598	402	196	551	449	102
British Columbia	639	361	278	641	359	282	559	441	118
Yukon Territory	848	152	696	765	235	530	678	322	356
Northwest Territories	506	494	12	515	485	30	517	483	34
Royal Canadian Navy	–	–	–	–	–	–	1,000	–	1,000
Canada	**512**	**488**	**24**	**530**	**470**	**60**	**515**	**485**	**30**

10.—Masculinity of the Population of Various Countries.

NOTE.—The minus sign (–) indicates a deficiency of males.

Countries.	Year.	Excess of males over females in each 100 population.	Countries.	Year.	Excess of males over females in each 100 population.
Argentine Republic	1918	7·27	Spain	1920	–1·34
Canada	**1921**	**3·00**	Belgium	1920	–1·59
Union of South Africa[1]	1921	2·92	Switzerland	1910	–1·62
India	1921	2·84	France	1911	–1·74
New Zealand	1921	2·26	Italy	1911	–1·81
United States of America	1920	1·98	Denmark	1921	–2·44
Australia	1921	1·58	Norway	1920	–2·60
Ireland	1919	1·08	Scotland	1921	–3·79
Rumania	1915	0·75	Austria	1920	–4·24
Japan	1920	0·22	Prussia	1919	–4·49
Bulgaria	1921	0·04	England and Wales	1921	–4·54
Chile	1920	–0·57	Poland	1920	–4·66
Netherlands	1920	–0·65	German Empire	1919	–4·78
Greece	1920	–0·66	Russia	1920	–4·78
Sweden	1920	–1·16	Portugal	1911	–5·08
Finland	1920	–1·31			

[1]White population only.

Section 3.—Conjugal Condition.

In Table 11 are given in summary form, together with percentages, the statistics of the conjugal condition of the population, as single, married, widowed, divorced, legally separated and not given, for the six censuses since 1871. Especially notable is the larger percentage of married in the more recent years. This is mainly attributable to the larger percentage of adults to total population in our own time. Noteworthy also is the larger percentage of divorced in recent years, though it should be remembered that the 1921 figures include also the legally separated. The reader should also consult p. 168 of this Volume for the number of divorces granted in each year since 1900.

The conjugal condition of the 1921 population is shown by provinces in Table 12; a table showing in detail the conjugal condition of the population in 1921, by quinquennial age-groups from age 15 and upwards, will be found on pages 99-100 of the 1924 Year Book. (See also detailed tables on pp. 113-233 of Vol. II of the Census of 1921.)

11.—Conjugal Condition of the Population, by Numbers and Percentages, as shown by the Censuses of 1871, 1881, 1891, 1901, 1911 and 1921.

Sex.	Single.	Married.	Widowed.	Divorced.	Legally Separated.	Not Given.	Total.
1871[1]—	No.	No.	No.	No.	No.	No.	No.
Male	1,183,787	543,037	37,487	–	–	–	1,764,311
Female	1,099,216	542,339	79,895	–	–	–	1,721,450
1881—							
Male	1,447,415	690,544	50,895	–	–	–	2,188,854
Female	1,336,981	689,540	109,435	–	–	–	2,135,956
1891—							
Male	1,601,541	796,153	62,777	–	–	–	2,460,471
Female	1,451,851	791,902	129,015	–	–	–	2,372,768
1901—							
Male	1,748,582	928,952	73,837	337	–	–	2,751,708
Female	1,564,011	904,091	151,181	324	–	–	2,619,607
1911—							
Male	2,369,766	1,331,853	89,154	839	1,286	29,097	3,821,995
Female	1,941,886	1,251,468	179,656	691	1,584	9,363	3,384,648
1921—							
Male	2,698,754	1,698,395	119,708	3,670	[2]	9,418	4,529,945
Female	2,378,844	1,631,761	236,522	3,731	[2]	7,680	4,258,538
1871[1]—	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Male	67·10	30·78	2·12	–	–	–	100
Female	63·85	31·51	4·64	–	–	–	100
1881—							
Male	66·12	31·55	2·33	–	–	–	100
Female	62·59	32·28	5·13	–	–	–	100
1891—							
Male	65·09	32·36	2·55	–	–	–	100
Female	61·18	33·38	5·44	–	–	–	100
1901—							
Male	63·55	33·76	2·68	·01	–	–	100
Female	59·71	34·51	5·77	·01	–	–	100
1911—							
Male	62·01	34·85	2·33	·02	·03	·76	100
Female	57·37	36·97	5·31	·02	·05	·28	100
1921—							
Male	59·58	37·49	2·64	·08	[2]	·21	100
Female	55·86	38·32	5·55	·09	[2]	·18	100

[1]The figures for 1871 are for the four original provinces of Ontario, Quebec, New Brunswick and Nova Scotia only. [2]Legally separated included with divorced.

12.—Conjugal Condition of the People of Canada, classified as Single, Married, Widowed, Divorced and not given, by Provinces, 1921.

Provinces.	Males.					
	Single.	Married.	Widowed.	Divorced.[1]	Not given.	Total.
Prince Edward Island	27,634	15,668	1,549	24	12	44,887
Nova Scotia	162,835	94,808	8,440	217	172	266,472
New Brunswick	121,428	69,674	5,918	125	206	197,351
Quebec	736,144	406,540	32,912	603	3,829	1,180,028
Ontario	828,538	607,186	42,954	1,135	2,077	1,481,890
Manitoba	196,072	117,480	6,472	246	297	320,567
Saskatchewan	263,186	142,431	7,456	337	290	413,700
Alberta	199,741	117,081	6,667	413	306	324,208
British Columbia	159,629	125,656	7,118	547	459	293,409
Yukon Territory	1,880	735	152,	22	102	2,819
Northwest Territories	1,460	935	66	1	1,667	4,129
Royal Canadian Navy	279	201	4	–	1	485
Total	**2,698,754**	**1,698,395**	**119,708**	**3,670**	**9,418**	**4,529,945**

Provinces.	Females.					
	Single.	Married.	Widowed.	Divorced.[1]	Not given.	Total.
Prince Edward Island	24,717	15,616	3,358	18	19	43,728
Nova Scotia	144,859	93,384	18,752	210	160	257,365
New Brunswick	109,670	68,860	11,676	106	213	190,525
Quebec	720,362	399,271	57,809	758	2,971	1,181,171
Ontario	759,901	589,518	99,259	1,369	1,725	1,451,772
Manitoba	162,928	113,795	12,349	260	219	289,551
Saskatchewan	196,499	136,270	10,567	233	241	343,810
Alberta	143,958	110,190	9,607	289	202	264,246
British Columbia	114,199	103,433	12,846	483	212	231,173
Yukon Territory	582	576	78	4	98	1,338
Northwest Territories	1,169	848	221	1	1,620	3,859
Total	**2,378,844**	**1,631,761**	**236,522**	**3,731**	**7,689**	**4,258,538**

[1]Includes legally separated.

Section 4.—Dwellings and Family Households.[2]

In 1921 the number of occupied dwellings in Canada, exclusive of the Yukon and Northwest Territories, for which statistics are not available, was 1,764,129, and the number of families 1,897,227, as compared with 1,408,689 dwellings and 1,482,980 families in the same area in 1911, and 1,018,015 dwellings and 1,058,386 families in 1901.

The average number of persons per dwelling in 1921, as respects the 8,775,853 persons in the nine provinces, was 4·97, as against 5·11 in 1911, 5·23 in 1901, 5·53 in 1891, 5·76 in 1881 and 6·08 in 1871; this would imply that the Canadian people are not less adequately housed than in the past. The average number of persons per family was 4·63 in 1921, as against 4·85 in 1911, 5·03 in 1901, 5·26 in 1891, 5·33 in 1881, and 5·60 in 1871, indicating a continuous decline since 1871 in the average number of persons constituting a household. For details see Table 13.

[2]DWELLINGS.—A dwelling for census purposes is a place in which one or more persons regularly sleep. It need not be a house in the usual sense of the word, but may be a hotel, boarding house, institution, or the like. A boat, a tent, a railway car, or a room in a factory or office building, although occupied by only one person, is counted as a dwelling house. On the other hand, an entire apartment house, containing many families, constitutes only one dwelling.

FAMILIES.—The term "family," as used in the census, signifies a group of persons, whether related by blood or not, who live together as one household, usually sharing the same table. One person living alone is counted as a family. Thus, a clerk in a store who regularly sleeps there is returned as a family and the store as his dwelling. On the other hand, all the occupants and employees of a hotel or lodging house, if that is their regular abode, and all the inmates of an institution, whether a hospital, poor house, insane asylum, prison, school of learning, home for the aged, etc., are treated as constituting a single family.

In 1921 the urban families numbered 958,371 in 843,588 dwellings, or 1·14 families per dwelling. The number of persons per dwelling was 5·16 and the number of persons per family 4·54.

In the rural districts the number of families was 938,856 in 920,541 dwellings or 1·02 families per dwelling. The number of persons per family was 4·71 and the number of persons per dwelling 4·81. For more detailed information, see Vol. III of the Census of 1921.

13.—Dwellings and Family Households, by Provinces, 1881-1921.[1]

Provinces.	Census years.	Population.	Number of dwellings.	Number of families.	Persons per dwelling.	Persons per family.	Families per dwelling.
P. E. Island	1881	108,891	17,724	17,973	6·14	6·06	1·0
	1891	109,078	18,389	18,601	5·93	5·86	1·0
	1901	103,259	18,530	18,746	5·57	5·51	1·0
	1911	93,728	18,237	18,425	5·14	5·09	1·0
	1921	88,615	18,628	18,801	4·76	4·71	1·0
Nova Scotia	1881	440,572	74,154	79,596	5·94	5·54	1·0
	1891	450,396	79,102	83,733	5·69	5·38	1·0
	1901	459,574	85,313	89,386	5·39	5·14	1·0
	1911	492,338	93,784	98,491	5·25	5·00	1·0
	1921	523,837	102,807	108,723	5·10	4·82	1·0
New Brunswick	1881	321,233	51,166	56,948	6·28	5·64	1·1
	1891	321,263	54,718	58,462	5·87	5·50	1·0
	1901	331,120	58,226	62,695	5·69	5·28	1·0
	1911	351,889	60,930	67,093	5·78	5·24	1·1
	1921	387,876	70,428	76,949	5·51	5·04	1·0
Quebec	1881	1,359,027	216,432	254,841	6·28	5·33	1·1
	1891	1,488,535	246,644	271,991	6·04	5·47	1·1
	1901	1,648,898	291,427	307,304	5·66	5·37	1·0
	1911	2,005,776	340,196	371,590	5·90	5·40	1·0
	1921	2,361,199	398,384	442,356	5·93	5·34	1·1
Ontario	1881	1,926,922	359,293	366,444	5·36	5·26	1·0
	1891	2,114,321	406,948	414,789	5·20	5·10	1·0
	1901	2,182,947	445,310	455,264	4·90	4·79	1·0
	1911	2,527,292	529,190	545,229	4·78	4·64	1·0
	1921	2,933,662	637,552	681,629	4·60	4·30	1·0
Manitoba	1881	62,260	12,803	14,169	4·86	4·39	1·1
	1891	152,506	30,790	31,786	4·95	4·80	1·0
	1901	255,211	49,784	51,056	5·13	5·00	1·0
	1911	461,394	85,720	91,230	5·38	5·06	1·0
	1921	610,118	117,541	128,984	5·19	4·73	1·1
Saskatchewan	1901	91,279	17,645	19,089	5·17	4·78	1·0
	1911	492,432	118,283	120,751	4·16	4·08	1·0
	1921	757,510	163,661	168,555	4·63	4·49	1·0
Alberta	1901	73,022	14,842	16,401	4·92	4·45	1·1
	1911	374,295	87,672	90,346	4·27	4·14	1·0
	1921	588,454	136,125	141,190	4·32	4·17	1·0
British Columbia	1881	49,459	9,793	10,439	5·05	4·74	1·0
	1891	98,173	20,016	20,718	4·90	4·74	1·0
	1901	178,657	36,938	38,445	4·84	4·65	1·0
	1911	392,480	74,677	79,825	5·26	4·92	1·0
	1921	524,582	119,003	130,040	4·41	4·03	1·0
Canada[1]	**1881**	**4,268,364**	**741,365**	**890,410**	**5·76**	**5·33**	**1·2**
	1891	**4,734,272**	**856,607**	**909,080**	**5·53**	**5·26**	**1·0**
	1901	**5,323,967**	**1,018,615**	**1,058,386**	**5·23**	**5·03**	**1·0**
	1911	**7,191,624**	**1,408,689**	**1,482,980**	**5·11**	**4·85**	**1·0**
	1921	**8,775,853**	**1,764,129**	**1,897,227**	**4·97**	**4·63**	**1·0**

[1]Exclusive of the Yukon and Northwest Territories.

Material of Construction of Dwellings.—Statistics regarding the material of construction of Canadian dwellings, as given in a table on p. 114 of the 1927-28 Year Book, show that the enormous quantity of wood available in Canada has made wooden houses the predominant type of dwelling, though their percentage to the total has declined from 80·16 in 1891 to 72·92 in 1921. Their number, however, has increased from 686,614 in 1891 to 1,286,396 in 1921. Brick houses have increased from 131,421 in 1891 to 383,032 in 1921, or from 15·34 to 21·71 p.c., while stone houses have declined from 3·01 p.c. to 1·83 p.c. of the total during the thirty-year period. Concrete houses increased from 4,518 in 1911 to 11,163 in 1921 or from 0·32 to 0·63 p.c.

Tenure of Homes.—Of the 1,764,129 dwellings enumerated at the census of 1921, 35,095 were apartment houses, and 76,471 were rows or terraces. Thus these 1,764,129 dwellings provided 2,001,512 homes, 977,776 of which were rural and 1,023,736 urban. Of the former, 767,581, or 78·5 p.c., were occupied by owners; of the latter, 471,569, or 46·06 p.c., were occupied by owners. For details, see table on p. 115, 1927-28 Year Book.

Section 5.—Age Distribution.[1]

The same causes which in the past have rendered the sex distribution of population in Canada somewhat unusual have also affected its age distribution. In the first stages of the settlement of a new colony, men in the prime of life constitute the bulk of the population, and women and children are conspicuous by their absence, so that there is a disproportionately large male population between the ages of 20 and 50, together with a low birth rate. Later on in the settlement of a new country where there is land and food for all and where the early disproportion of the sexes has been overcome, there is a very high rate of natural increase and an extraordinarily large proportion of children among the population. Thus in 1871 (see Table **14**) no fewer than 287 out of every 1,000 of the population of Canada were children under 10 years of age, and over half the total population (526·76 out of every 1,000) were under 20 years of age. But with the growing urbanization of population, the average age at marriage increased and children came to be regarded as a liability rather than an asset. Thus in 1911, out of every 1,000 of the population, only 231·83 were under 10 years of age and 423·42 under 20 years of age. In 1921, however, 239·68 per 1,000 of the population were under 10 years of age and 434·82 per 1,000 under 20 years, the increase since 1911 being probably attributable to the decline in the proportion of adult immigrants to the total population.

Again, the change in the age distribution of the population of Canada since 1871 may be illustrated as follows:—taking the Canadian who in 1921 was at the median age (*i.e.*, had exactly as many of the population younger than he as were older than he), we find that, as nearly as can be estimated, this Canadian in 1921 was 23·94 years of age. Taking the males alone, their median age in 1921 was 24·73 years, while the median age for females was 23·17 years. Now, taking the population of the four original provinces as taken at the census of 1871, and securing its median age as nearly as can be estimated, we find that that age was for the total population 18·80 years, for the male population 18·78 years and for the female population 18·82 years. Thus the Canadian of median age, with exactly as many people younger as there are older, was 5·14 years older in 1921 than in 1871—a fact mainly attributable to the smaller proportion of children in the popu-

[1]For more detailed information on age distribution, see pp. I-III of Vol. II of the Census of 1921, published by the Dominion Bureau of Statistics.

lation in the more recent year, but partly to the longer average period of life. The median age in Ontario in 1921 was 26·76 years, while the median age in Quebec was only 20·79 years, a difference of nearly six years between these two provinces. (See Table 15 for the varying age distribution of the population of different provinces.) A table showing by sex the age distribution of the population at the census of 1881 and subsequent censuses was published on pp. 101-102 of the 1925 Year Book.

14.—Proportion per 1,000 of the Population by Age-Periods, 1871-1921.

Age-Periods.	1871.	1881.	1891.	1901.	1911.	1921.
Under 1 year	30·567	28·019	24·922	24·497	25·734	23·859
1— 4 years	115·649	108·508	99·963	95·211	97·413	96·487
5— 9 "	140·691	128·251	121·242	114·663	108·685	119·334
10—19 "	239·854	227·404	219·712	210·906	191·585	195·138
20—29 "	171·436	175·957	178·080	173·550	189·335	159·041
30—39 "	111·404	113·099	122·079	129·259	141·938	146·246
40—49 "	79·995	83·817	88·441	98·494	100·071	109·480
50—59 "	54·788	58·086	62·360	67·886	69·121	73·080
60 and over	55·128	63·269	70·141	76·396	71·027	74·915
Not given	0·487	13·589	13·059	9·137	5·090	2·421

15.—Proportion per 1,000 of the Population by Age-Periods, by Provinces, 1921, with Totals for 1911.

Provinces.	0–9 years.	10–19 years.	20–44 years.	45–69 years.	70 years and over.	Age not given.
Prince Edward Island	218·83	204·31	312·33	203·79	60·24	0·50
Nova Scotia	229·58	208·32	331·50	182·53	47·26	0·81
New Brunswick	247·07	213·41	327·19	172·58	38·53	1·22
Quebec	264·22	219·26	335·09	150·52	27·08	3·83
Ontario	207·66	180·66	377·44	197·82	34·87	1·55
Manitoba	258·99	197·44	379·89	145·82	16·87	0·99
Saskatchewan	289·93	190·67	382·89	123·82	11·65	1·04
Alberta	262·36	183·38	400·39	141·18	11·70	0·99
British Columbia	198·31	158·07	424·57	198·89	18·42	1·74
Average for Canada, 1921[1]	**239·68**	**195·14**	**365·27**	**169·38**	**28·11**	**2·42**
Average for Canada, 1911[1]	**231·83**	**191·59**	**385·35**	**158·03**	**28·12**	**5·09**

[1] The statistics for the Yukon and the Northwest Territories are not given in the table but are included in the total population of Canada.

Section 6.—Nationality and Citizenship.[2]

At the last three decennial censuses of 1901, 1911 and 1921 inquiry has been made into the nationality of the population. The relevant instructions to enumerators at the 1921 census were as follows:—

> "It is proper to use 'Canadian' as descriptive of every person whose home is in the country and who has acquired rights of citizenship in it. A person who was born in the United States, or France, or Germany or other foreign country, but whose home is in Canada and who is a naturalized citizen, should be entered as 'Canadian'; so also should a person born in the United Kingdom or any of its colonies whose residence in Canada is not merely temporary. An alien person will be classed by nationality or citizenship according to the country of birth, or the country to which he or she professes to owe allegiance.
>
> "A married woman is to be reported as of the same citizenship as her husband.
>
> "A foreign-born child under 21 years of age is to be reported as of the same citizenship as the parents."

[2] For more detailed information regarding the citizenship of the foreign-born population, see pp. 421-490 of Vol. II of the Census of 1921, published by the Dominion Bureau of Statistics.

The fact that foreign-born persons who have been in Canada less than five years (the length of residence required to obtain naturalization) are reported as "Canadian citizens" is in virtue of the operation of the Naturalization Act of 1914, which provides that the following persons shall be deemed to be British subjects:—

(a) "Any person born within His Majesty's dominions and allegiance; and

(b) "Any person born out of His Majesty's dominions, whose father was a British subject at the time of that person's birth and either was born within His Majesty's allegiance or was a person to whom a certificate of naturalization had been granted; and

(c) "Any person born on board a British ship whether in foreign territorial waters or not."

Provided (1) "that the child of a British subject, whether that child was born before or after the passing of this Act, shall be deemed to have been born within His Majesty's allegiance if born in a place where by treaty, capitulation, grant, usage, sufferance, or other lawful means, His Majesty exercises jurisdiction over British subjects."

(2) "The wife of a British subject shall be deemed to be a British subject."

(3) "A woman, who, having been an alien, has by or in consequence of her marriage become a British subject, shall not, by reason only of the death of her husband or the dissolution of her marriage, cease to be a British subject."

The approximate number of Canadian nationals in 1921 is given by provinces and by birthplaces in Table **16**, where it is assumed that all Canadian-born persons are Canadian nationals, also all British-born persons domiciled in Canada and thus recorded in the census. Doubtless there were domiciled in Canada at the date of the census certain Canadian-born people who had at some time or other given up their original Canadian citizenship and had not resumed it either because of personal preference or because they had not been resident in this country the necessary period of five years required for repatriation. Again, certain of our British-born people domiciled in Canada were not Canadian citizens either because they had been naturalized in some foreign country and had never given up such allegiance or because they had not been resident in Canada for the one year required to vote at elections or the five year period required by the Immigration Act.[1] Thus Table **16** somewhat overstates the number of Canadian citizens domiciled in Canada.

On the other hand, many Canadian citizens are residents of other countries, the largest number being in the United States, where the census taken on Jan. 1, 1920, showed that out of 1,117,778 white persons of Canadian birth reported as residents of the United States at the date of the census, 607,303 were naturalized citizens, 72,714 had taken out their first papers and 345,557 were, from the point of view of the United States, aliens, and therefore, from our point of view, presumably Canadian citizens, while the citizenship of 92,304 was not ascertained. Thus a very considerable number of Canadian citizens were domiciled outside of Canada in 1920 and 1921.

"Canadians" by nationality, without deducting these comparatively rare exceptions referred to above, numbered altogether in 1921 8,412,383, including 6,832,747 Canadian-born, 1,065,454 resident British-born and 514,182 naturalized foreign-born, of whom 237,994 had been born in the United States.

[1] Out of 1,065,454 British-born residents of Canada on June 1, 1921, 90,056 immigrants had arrived since Jan. 1, 1920, most of whom would presumably not have been residents of Canada for the one year required by the Dominion Election Act. Further, a total of 177,920 British-born immigrants had entered the country since Jan. 1, 1915, and most of these would not have been five years in the country and would not be considered as "Canadian citizens" under the definition of section 2 of the Immigration Act.

16.—Canadian Nationals, by Provinces and Birthplaces, 1921.

Provinces.	Canadian-born.	British-born.	Naturalized.		Total.
			U.S. born.	Born in Other Foreign Countries.	
P. E. Island	86,250	1,074	999	51	88,374
Nova Scotia	480,332	29,519	5,556	2,212	517,619
New Brunswick	366,418	10,709	6,043	1,176	384,346
Quebec	2,172,623	89,864	29,940	23,870	2,316,297
Ontario	2,291,979	459,577	41,542	42,385	2,835,933
Manitoba	387,746	113,114	11,928	58,140	570,928
Saskatchewan	457,833	100,355	60,428	80,851	699,467
Alberta	315,090	99,392	61,357	46,359	522,198
British Columbia	264,046	160,752	19,905	20,528	465,231
Yukon	2,600	572	247	98	3,517
N.W. Territories	7,781	93	46	68	7,988
Royal Canadian Navy	49	433	3	–	485
Totals	**6,832,747**	**1,065,454**	**237,994**	**276,188**	**8,412,383**

The Progress of Naturalization.—The foreign-born residents of Canada numbered 890,282 in 1921, as compared with 752,732 in 1911 and 278,449 in 1901; among these the naturalized numbered 514,182 in 1921, 344,557 in 1911 and 153,908 in 1901, or 57·75 p.c., 45·77 p.c. and 55·27 p.c. respectively. Alien residents in Canada thus showed a rather remarkable absolute decline from 408,175 in 1911 to 376,100 in 1921, or from 5·66 p.c. to 4·28 p.c. of the total population. The largest single group of aliens, United States-born aliens, declined from 151,372 in 1911 to 136,030 in 1921, though the total of U.S.-born persons in Canada increased from 303,680 to 374,024. The percentage of naturalized to total U.S.-born, therefore, rose from 50·15 p.c. to 63·63 p.c., and it may be added that, as is shown in Table 17, the percentage of naturalized to total foreign-born was greater in 1921 than in 1911 among those born in each foreign country except China, in which case it declined from 9·52 to 4·78.

17.—Naturalized Persons among the Foreign-born Residents of Canada, by Countries of Birth, Numbers and Percentages, 1901, 1911 and 1921.

Countries of Birth.	1901.			1911.			1921.		
	Total.	Naturalized.		Total.	Naturalized.		Total.	Naturalized.	
		No.	p.c.		No.	p.c.		No.	p.c.
Austria-Hungary	28,407	9,320	32·81	121,430	60,949	50·19	127,292	76,055	59·75
Belgium	2,280	1,296	56·84	7,975	3,265	40·94	13,276	5,586	42·08
China	17,043	668	3·92	27,083	2,578	9·52	36,924	1,766	4·78
Denmark	2,075	1,301	62·70	4,937	2,359	47·78	7,192	4,052	56·34
France	7,944	4,975	62·63	17,619	8,911	50·58	19,249	10,617	55·16
Germany	27,300	20,883	76·49	39,577	23,283	58·83	35,025	21,630	61·76
Greece	213	95	44·60	2,640	476	18·03	3,769	1,105	29·32
Holland	385	198	51·43	3,808	1,128	29·62	5,828	2,820	48·39
Iceland	6,057	4,013	66·25	7,109	5,864	82·49	6,776	5,850	86·36
Italy	6,854	1,692	24·69	34,739	6,900	19·86	35,531	10,739	30·22
Japan	4,674	1,062	22·72	8,425	1,898	22·53	11,650	3,902	33·49
Norway and Sweden	10,256	6,094	59·42	49,194	21,891	44·50	50,827	35,249	69·35
Rumania and Bulgaria	1,066	378	35·46	9,657	3,755	38·88	23,784	14,010	58·91
Russia	31,231	11,394	36·48	100,971	43,887	43·46	110,814	68,039	61·40
Turkey and Syria	1,579	481	30·46	4,768	1,889	39·62	4,280	2,452	57·29
United States	127,899	87,049	68·06	303,680	152,308	50·15	374,024	237,994	63·63
Other Countries	3,186	3,009	94·44	9,120	3,216	35·26	24,041	12,314	51·22
Total	**278,449**	**153,908**	**55·27**	**752,732**	**344,557**	**45·77**	**890,282**	**514,182**	**57·75**

Naturalized Population of Voting Age.—Among the 514,182 naturalized foreign-born persons in 1921, there were 111,099 under 21 years of age, naturalized as a result of the provisions of the Naturalization Act in regard to minors—children who were born in the homeland to parents who since immigration have become naturalized Canadians, or who were born to British nationals in a foreign country. The wives of British or Canadian nationals, whether over or under 21 years of age, were also reported as naturalized, in accordance with the law.

Deducting the 111,099 from the total of 514,182, there remain 403,083 naturalized persons of voting age. These voters constituted in 1921 8·4 p.c. of the total possible voters throughout the Dominion. In Saskatchewan these naturalized voters numbered 29 p.c. of the total, in Alberta 27 p.c., in Manitoba 19 p.c., in British Columbia 10 p.c., in Ontario less than 4 p.c., in Quebec about 3 p.c., and in the Maritime Provinces a little over 2 p.c.

18.—Total Foreign-born and Naturalized Foreign-born Population of 21 years and over, with Percentage of Naturalized to Total, by Sex and Provinces, 1921.

Provinces.	Males.			Females.			Both Sexes.		
	Total.	Voters.		Total.	Voters.		Total.	Voters.	
		No.	p.c.		No.	p.c.		No.	p.c.
Prince Edward Island	220	137	62·27	251	224	89·24	471	361	76·65
Nova Scotia	5,567	2,299	41·30	4,028	2,597	64·47	9,595	4,896	51·03
New Brunswick	3,506	1,730	49·34	3,354	2,620	78·12	6,860	4,350	63·41
Quebec	40,935	18,368	44·87	34,194	20,551	60·10	75,129	38,919	51·80
Ontario	86,414	31,411	36·35	58,218	34,069	58·52	144,632	65,480	45·27
Manitoba	50,581	31,976	62·88	39,074	27,715	70·93	89,925	59,691	66·38
Saskatchewan	90,298	62,691	69·43	61,984	48,023	77·48	152,282	110,714	72·70
Alberta	80,317	48,270	60·10	51,655	36,424	70·51	131,972	84,694	64·18
British Columbia	61,063	18,570	30·41	24,645	14,970	60·74	85,708	33,540	39·13
Yukon	726	202	27·82	221	123	55·66	947	325	34·32
Northwest Territories	96	96	100·00	16	16	100·00	112	112	100·00
Total	**419,994**[1]	**215,751**[1]	**51·37**	**277,640**	**187,332**	**67·47**	**697,634**[1]	**403,083**[1]	**57·78**

[1] Including one person belonging to the Canadian Navy.

Naturalization by Year of Immigration.—Comparative details as to the year of immigration and as to the naturalization of the foreign-born residents of Canada in 1921 were given by countries of birth in a table on pp. 117-118 of the 1925 Year Book, roughly indicating the respective willingness of our immigrants born in different foreign countries to assume the duties of Canadian citizenship and therefore showing their comparative rate of assimilation. Those born in Iceland had the highest percentage, 86·36 p.c. of them being Canadian citizens at the date of the census. Hungarian-born came next with 73·32 p.c. and Norwegian-born third with 71·65 p.c. The numerically largest group, the United States-born, showed a percentage of naturalization of 63·63.

The above method of ascertaining the assimilability of the foreign-born is, however, a rather crude one, inasmuch as it takes no account of the relative length of residence of those born in the various countries. Thus, for example, comparatively few Icelanders have come to Canada since 1910, while immigration from Italy was comparatively active between 1919 and 1921—such immigrants having at the date of the census had no opportunity of changing their allegiance on account of the five years' residence required. If we consider the large group of immigrants who arrived in Canada between 1900 and 1910 as supplying the means of a better test, we find that out of the 356,030 immigrants of this period who were in Canada at the

date of the census 257,767 or 72·40 p.c. were naturalized. Icelanders led with 86·86 p.c. naturalized, followed by Norwegians with 84·82, Hungarians with 83·94, United States-born with 80·85, Danes with 79·80 and Swedes with 79·00.

Naturalization of United States-born.—It may be added that the percentage of naturalization of U.S.-born is higher than that of "all foreign-born" and of European foreign-born in each of the groupings by years of immigration. The explanation of this is doubtless to be found in the fact that among the 374,024 U.S.-born persons resident in Canada at the date of the census, no fewer than 205,189 were of British stock and 50,630 of French, mainly French-Canadian Stock; summary figures on the naturalization of the U.S.-born are given in Table **19**, while more detailed statistics on this subject will be found in Table 71 on p. 474 of Vol. II of the Census of 1921.

19.—United States-born Population of Canada, classified as Naturalized or Alien, by Racial Origins, 1921.

Racial Origins.	Total.	Naturalized.	Aliens.	Per cent naturalized.
	No.	No.	No.	p.c.
English	108,008	66,713	41,295	61·77
Irish	51,642	32,417	19,225	62·77
Scotch	41,948	28,225	13,723	67·29
Other	3,591	2,177	1,414	60·62
British—Total	205,189	129,532	75,657	63·13
French	50,630	39,138	11,492	77·30
Austrian	1,402	795	607	56·70
Belgian	734	332	402	45·23
Czech	1,044	590	454	56·51
Danish	4,122	2,295	1,827	55·58
Dutch	10,176	5,704	4,472	56·05
Finnish	1,427	799	628	55·99
German	40,009	23,168	16,841	57·91
Greek	122	41	81	33·61
Hebrew	4,851	2,352	2,499	48·48
Hungarian	575	353	222	61·39
Icelandic	1,008	740	268	73·41
Italian	1,912	753	1,159	39·38
Negro	3,099	1,396	1,703	45·05
Norwegian	22,186	15,304	6,882	68·98
Polish	1,507	697	810	46·25
Rumanian	144	92	52	63·89
Russian	6,158	3,635	2,523	59·03
Serbo-Croatian	234	140	94	59·83
Spanish	309	142	167	45·95
Swedish	11,625	7,270	4,355	62·54
Swiss	1,690	905	785	53·55
Syrian	253	112	141	44·27
Ukrainian	297	175	122	58·92
Unspecified	2,472	1,040	1,432	42·07
Various	849	494	355	58·19
Total	**374,024**	**237,994**	**136,030**	**63·63**

Native-born Canadians of Native Parentage.—The information secured at the census of 1921 has enabled a special compilation to be made of third-generation Canadians, *i.e.*, of Canadian-born persons both of whose parents were also born in Canada, and who therefore come into the category described in the United States as "native-born of native parents". Of such Canadians there were no fewer than 4,857,523 in 1921, of whom 1,991,276 were residents of the Province of Quebec, and 1,451,544 of Ontario. The Maritime Provinces also show a high percentage of Canadian-born of Canadian parents. Figures are given by provinces in Table **20**, while much more detailed information on this subject may be found at pages 256-293 of Volume II of the Census of 1921.

20.—Canadian-born Population, classified by Age-Groups according to Nativity of Parents, by Provinces, 1921.

Age-groups.	Canadian-born population.	Number of persons born in Canada having—							
		Both parents			Mixed parentage.				Parentage not stated.
		Canadian-born.	British-born.	Foreign-born.	Father Canadian, Mother Foreign.	Father Foreign, Mother Canadian.	One parent Canadian, other British.	One parent British, other Foreign.	
Prince Edward Island	**86,250**	**77,041**	**3,794**	**110**	**331**	**335**	**4,523**	**58**	**58**
0- 9	19,032	18,306	63	35	172	104	330	16	6
10-20	19,060	18,517	59	34	72	71	296	7	4
21 and over	48,158	40,218	3,672	41	87	160	3,897	35	48
Nova Scotia	**489,332**	**424,069**	**19,030**	**4,612**	**3,063**	**3,537**	**24,758**	**982**	**890**
0- 9	117,383	98,472	5,907	2,577	1,500	1,474	6,842	447	164
10-20	110,837	99,615	3,523	1,066	800	819	4,747	206	61
21 and over	252,112	225,973	9,600	369	763	1,244	13,169	329	665
New Brunswick	**366,418**	**325,435**	**11,862**	**2,155**	**4,915**	**4,438**	**16,295**	**681**	**637**
0- 9	94,050	84,804	1,423	950	2,034	1,673	2,944	157	65
10-20	85,839	79,837	664	599	1,402	1,110	2,126	70	31
21 and over	186,529	160,794	9,775	606	1,479	1,655	11,225	454	541
Quebec	**2,172,623**	**1,991,276**	**54,404**	**37,247**	**19,507**	**19,754**	**37,760**	**4,205**	**8,476**
0- 9	615,724	545,552	17,872	21,572	9,379	9,252	9,802	1,762	533
10-20	529,425	488,715	8,843	10,901	6,123	5,585	7,872	829	557
21 and over	1,027,474	957,009	27,689	4,768	4,005	4,917	20,086	1,614	7,386
Ontario	**2,291,979**	**1,451,544**	**367,057**	**92,704**	**33,412**	**43,841**	**272,562**	**21,057**	**9,802**
0- 9	584,873	371,522	84,526	44,855	11,625	12,140	53,970	5,188	1,047
10-20	480,925	363,753	35,171	16,158	8,304	8,670	45,614	2,560	695
21 and over	1,226,181	716,269	247,360	31,691	13,483	23,031	172,978	13,309	8,060
Manitoba	**387,746**	**161,864**	**64,342**	**93,750**	**8,473**	**10,885**	**42,349**	**4,685**	**1,398**
0- 9	151,688	46,356	26,674	51,691	4,507	6,005	13,914	2,297	244
10-20	99,422	40,629	11,971	30,436	2,558	3,032	9,586	1,037	173
21 and over	136,636	74,879	25,697	11,623	1,408	1,848	18,849	1,351	981
Saskatchewan	**457,833**	**190,684**	**56,678**	**136,898**	**13,576**	**13,869**	**37,518**	**7,483**	**1,127**
0- 9	209,548	56,453	26,119	89,027	9,280	9,406	14,073	5,083	107
10-20	103,714	41,807	9,483	38,610	2,949	2,712	6,865	1,190	98
21 and over	144,571	92,424	21,076	9,261	1,347	1,751	16,580	1,210	922
Alberta	**315,090**	**124,225**	**45,728**	**87,539**	**11,337**	**9,278**	**26,588**	**8,238**	**2,157**
0- 9	142,841	31,682	22,938	58,935	7,619	6,305	9,393	5,553	416
10-20	69,644	27,433	7,444	24,002	2,522	1,647	4,750	1,543	303
21 and over	102,605	65,110	15,346	4,602	1,196	1,326	12,445	1,142	1,438
British Columbia	**264,046**	**103,531**	**72,952**	**27,716**	**7,436**	**6,749**	**36,136**	**8,357**	**1,169**
0- 9	96,462	23,384	32,967	16,606	3,719	3,239	12,244	4,147	156
10-20	59,400	22,688	14,289	8,024	2,268	1,668	8,203	2,103	157
21 and over	108,184	57,459	25,696	3,086	1,449	1,842	15,689	2,107	856
Yukon	**2,600**	**1,638**	**90**	**71**	**44**	**47**	**119**	**32**	**559**
0- 9	527	320	24	25	24	21	35	9	69
10-20	424	276	17	35	11	10	26	17	32
21 and over	1,649	1,042	49	11	9	16	58	6	458
N. W. Territories	**7,781**	**6,199**	**2**	–	–	–	**3**	**8**	**1,569**
0- 9	1,249	1,115	2	–	–	–	3	2	127
10-20	1,120	995	–	–	–	–	–	6	119
21 and over	5,412	4,089	–	–	–	–	–	–	1,323
CANADA[1]	**6,832,747**	**4,857,523**	**695,951**	**482,196**	**102,095**	**112,734**	**498,618**	**55,787**	**27,843**
0- 9	**2,033,377**	**1,277,966**	**218,515**	**286,273**	**49,859**	**49,619**	**123,550**	**24,661**	**2,934**
10-20	**1,559,839**	**1,184,279**	**91,473**	**129,865**	**27,009**	**25,325**	**90,089**	**9,569**	**2,230**
21 and over	**3,239,531**	**2,395,278**	**385,963**	**66,058**	**25,227**	**37,790**	**284,979**	**21,557**	**22,679**

[1] Includes personnel of Royal Canadian Navy.

Section 7.—Birthplaces.[1]

The nativity of the population of Canada, as at each of the six censuses since Confederation, is shown by Canadian-born, British-born, United States-born and other foreign-born in Table 21. The table shows that in 1871, 97·28 p.c. of the population were born under the British flag, while half a century later the percentage had declined to 89·87. Among these, the Canadian-born population was at its maximum percentage in 1901, with 86·98 p.c. of the total, while in 1921 that percentage was at its minimum, 77·75. As a consequence of the large immigration from the United Kingdom in the first two decades of the century, the British-born population has increased from 7·84 p.c. in 1901 to 12·12 p.c. in 1921.

The foreign-born population has been divided into United States-born and other foreign-born. Worthy of note is the fairly steady increase of the United States-born population from 1·85 p.c. in 1871 to 4·25 p.c. in 1921. Other foreign-born increased from 0·87 p.c. in 1871 to 6·23 p.c. in 1911, but declined slightly to 5·88 p.c. of the total population in 1921, in spite of a numerical increase from 449,052 to 516,258.

21.—Birthplaces of the Population of Canada, according to the Censuses of 1871-1921.

Years.	Canadian-born.	British-born.	Foreign-born.		Total Population.	Percentages of Total Population.			
			Born in United States.	Born in other Foreign Countries.		Canadian-born.	British-born.	Foreign-born.	
								United States-born.	Other Foreign-born.
	No.	No.	No.	No.	No.	p.c.	p.c.	p.c.	p.c.
1871[2]...	2,894,186	496,477	64,447	30,651	3,485,761	83·04	14·24	1·85	0·87
1881....	3,721,826	478,615	77,753	46,616	4,324,810	86·06	11·07	1·79	1·08
1891....	4,189,368	490,573	80,915	72,383	4,833,239	86·68	10·15	1·67	1·50
1901....	4,671,815	421,051	127,899	150,550	5,371,315	86·98	7·84	2·38	2·80
1911....	5,619,682	834,229	303,680	449,052	7,206,643	77·98	11·58	4·21	6·23
1921....	6,832,747	1,065,454	374,024	516,258	8,788,483	77·75	12·12	4·25	5·88

The nativity of the 1921 population is indicated by sex in Table 22, for the various provinces and territories. In the Maritime Provinces, the population is shown by the census to be about 93 p.c. native-born, and in Quebec about 92 p.c. In Ontario, however, the proportion sinks to about 78 p.c., in Manitoba to about 63 p.c., in Saskatchewan to about 64 p.c., in Alberta to about 53 p.c., and in British Columbia to barely over 50 p.c.

About 40 p.c. of the total British-born population is in Ontario, while the British-born element bears the greatest proportion to the total in British Columbia, *viz.*, 30·6 p.c. The foreign-born element reaches its maximum percentage in the rapidly growing provinces of Saskatchewan and Alberta, where it constitutes 26·3 p.c. and 29·5 p.c. of the total population respectively.

[1] For more detailed information on this subject, see pp. 235-368 of Vol. II of the Census of 1921, published by the Dominion Bureau of Statistics.

[2] Figures for 1871 include the four original provinces of Ontario, Quebec, Nova Scotia and New Brunswick only.

22.—Population classified by Sex and Nativity, by Provinces and Territories, according to the Census of 1921, with Totals for 1911.

Provinces and Territories.	Total.			Canadian-born.		British-born.		Foreign-born.	
	Male.	Female.	Both Sexes.	Male.	Female.	Male.	Female.	Male.	Female.
P.E. Island	44,887	43,728	88,615	43,702	42,548	509	565	676	615
Nova Scotia	266,472	257,365	523,837	243,181	237,151	15,445	14,074	7,846	6,140
New Brunswick	197,351	190,525	387,876	186,417	180,001	5,495	5,214	5,439	5,310
Quebec	1,180,028	1,181,171	2,361,199	1,082,483	1,090,140	44,830	45,034	52,715	45,997
Ontario	1,481,890	1,451,772	2,933,662	1,139,262	1,152,717	237,220	222,357	105,408	76,698
Manitoba	320,567	289,551	610,118	198,284	189,462	61,651	51,463	60,632	48,626
Saskatchewan	413,700	343,810	757,510	241,557	216,276	57,430	42,925	114,713	84,609
Alberta	324,208	264,246	588,454	166,176	148,914	55,724	43,668	102,308	71,664
British Columbia	293,409	231,173	524,582	136,758	127,288	87,769	72,983	68,882	30,902
Yukon Territ'y.	2,819	1,338	4,157	1,583	1,017	486	86	750	235
N.W. Territories	4,129	3,859	7,988	3,951	3,830	80	13	48	16
Royal Canadian Navy	485	–	485	49	–	433	–	3	–
Canada—1921	**4,529,945**	**4,258,538**	**8,788,483**	**3,443,403**	**3,389,344**	**567,072**	**498,382**	**519,470**	**370,812**
Canada—1911	**3,821,995**	**3,384,648**	**7,206,643**	**2,849,442**	**2,770,240**	**501,138**	**332,284**	**471,415**	**282,124**

The Interprovincial Migration of Canadian-born.—Table 23 shows the extent of the migration of the population born in the eastern provinces to the Prairie Provinces and British Columbia. Of the total population born in Ontario, Quebec and the Maritime Provinces and living in Canada, 9·88 p.c. had moved from the province of birth to some other province in 1921, as against 9·46 p.c. in 1911. Of the total migration (568,965) from the eastern provinces reported in the 1921 census, 68·88 p.c. took up residence in the western provinces, while out of the total migration (481,935) from the eastern provinces in the previous census, 73·20 p.c. were living in the west. The interprovincial movement of the Maritime Provinces-born has been largely to the extreme west, Alberta and British Columbia, while that from Quebec and Ontario has been more largely to the middle west, Manitoba and Saskatchewan.

23.—Interprovincial Movement of Population from Eastern to Western Provinces, 1921 and 1911.

Provinces of birth.		Born in specified province.	Migrants.				Distribution of migrants in the Western Provinces.			
			Total.		Living in the West.					
			No.	Per cent.	No.	Per cent of all migrants	Man.	Sask.	Alta.	B.C.
Prince Edward Island	1921	101,513	17,331	17·07	8,431	48·65	1,103	2,375	2,458	2,495
	1911	103,410	13,966	13·51	6,810	48·76	967	1,515	1,846	2,482
Nova Scotia	1921	506,824	42,963	8·48	24,342	56·66	3,229	5,120	7,423	8,570
	1911	476,210	32,311	6·79	19,761	61·16	2,955	3,400	5,003	8,403
New Brunswick	1921	378,902	33,295	8·79	14,929	44·84	1,767	2,824	4,041	6,297
	1911	345,253	25,961	7·52	12,513	48·20	1,569	1,916	2,876	6,152
Quebec	1921	2,266,062	145,179	6·41	52,739	36·33	11,794	17,735	14,970	8,240
	1911	1,939,886	113,068	5·83	41,342	36·56	10,765	12,969	10,112	7,496
Ontario	1921	2,505,562	330,197	13·18	291,447	88·26	67,206	104,961	68,919	50,361
	1911	2,232,325	296,629	13·29	272,364	91·82	73,110	96,206	57,530	45,518
Total	**1921**	**5,758,863**	**568,965**	**9·88**	**391,888**	**68·88**	**85,099**	**133,015**	**97,811**	**75,963**
	1911	**5,097,084**	**481,935**	**9·46**	**352,790**	**73·20**	**89,366**	**116,006**	**77,367**	**70,051**

Increase of British-born (including Canadian-born) and Foreign-born Population.—In Table 24 it is shown that of the total increase (1,581,840) in population from 1911 to 1921, the Canadian-born account for 1,213,065 or 76·7 p.c.; natives of the British Islands, 220,887 or 13·9 p.c.; natives of other British possessions, including born "at sea", 10,338 or 0·7 p.c., leaving 137,550 or 8·7 p.c. of the total increase from 1911 to 1921 attributable to non-British sources. Of these 137,550 added to the population from alien birthplaces, immigrants born in the United States numbered 70,344 or 51·1 p.c. The census of 1911 showed a ten-year increase in population of 1,835,328, of which Canadian-born contributed 947,867 or 51·7 p.c., born elsewhere in the Empire, 413,178 or 22·5 p.c., and alien-born, 474,283 or 25·8 p.c.

24.—Birthplaces of the Population, by Provinces and Countries, 1911 and 1921.

NOTE.—The classification of the birthplaces of the foreign-born population shown in the following table has been made on a post-war basis, the statistics of 1911 having been revised to correspond with the territorial rearrangements consequent upon the World War of 1914–1918 and existing at the date of the census, June 1, 1921. For details see p. 111 of the 1925 Year Book.

Birthplaces.	Population.		Increase in 10 years.		Per cent of total population born in specified country.	
	1911.	1921.	No.	p.c.	1911.	1921.
BRITISH-BORN	**6,453,911**	**7,898,201**	**1,444,290**	**22·38**	**89·56**	**89·87**
Canada	**5,619,682**	**6,832,747**	**1,213,065**	**21·59**	**77·98**	**77·75**
Prince Edward Island	103,410	101,513	−1,897	−1·83	1·43	1·16
Nova Scotia	476,210	506,824	30,614	6·43	6·61	5·77
New Brunswick	345,253	378,902	33,649	9·75	4·79	4·31
Quebec	1,939,886	2,266,062	326,176	16·81	26·92	25·78
Ontario	2,232,325	2,505,562	273,237	12·24	30·98	28·51
Manitoba	214,566	351,444	136,878	63·79	2·98	4·00
Saskatchewan	108,149	314,830	206,681	191·11	1·50	3·58
Alberta	78,205	211,643	133,438	170·63	1·08	2·41
British Columbia	87,935	167,169	79,234	90·11	1·22	1·90
Yukon	1,824	1,751	−73	−4·00	·02	·02
Northwest Territories	7,684	6,919	−765	−9·96	·11	·08
Not stated	24,235	20,128	−4,107	−16·95	·34	·23
British Isles	**804,234**	**1,025,121**	**220,887**	**27·47**	**11·16**	**11·66**
England	510,674	686,663	175,989	34·46	7·09	7·81
Ireland	92,874	93,301	427	·46	1·29	1·06
Scotland	169,391	226,483	57,092	33·70	2·35	2·58
Wales	8,727	13,779	5,052	57·89	·12	·16
Lesser Isles	2,860	4,807	1,947	68·08	·04	·05
Country not stated	19,708	88	−19,620	−99·55	·27	–
British Possessions	**29,188**	**39,680**	**10,492**	**35·95**	**·41**	**·45**
Australia	2,655	2,855	200	7·53	·04	·03
India	4,491	3,848	−643	−14·32	·06	·05
Newfoundland	15,469	23,107	7,638	49·38	·21	·26
New Zealand	903	1,085	182	20·16	·01	·01
South Africa	1,166	1,760	594	50·94	·02	·02
West Indies	1,878	4,270	2,392	127·37	·03	·05
Other British Possessions	2,626	2,755	129	4·91	·04	·03
FOREIGN-BORN	**752,732**	**890,282**	**137,550**	**18·27**	**10·44**	**10·13**
Europe	**404,941**	**459,328**	**54,387**	**13·43**	**5·62**	**5·23**
Austria	67,502	57,535	−9,967	−14·77	·94	·65
Belgium	7,975	13,276	5,301	66·47	·11	·15
Bulgaria	19,937	1,005	–	–	·28	·01
Czechoslovakia	1,689	4,322	2,633	155·89	·02	·05
Denmark	4,937	7,192	2,255	45·68	·07	·08
Finland	10,987	12,156	1,169	10·64	·15	·14
France	17,619	19,249	1,630	9·25	·24	·22
Galicia	31,373	36,025	4,652	14·83	·44	·41
Germany	39,577	25,266	−14,311	−36·16	·55	·29
Greece	2,640	3,769	1,129	42·77	·04	·04
Holland	3,808	5,828	2,020	53·05	·05	·07
Hungary	10,586	7,493	−3,093	−29·22	·15	·09

24.—Birthplaces of the Population, by Provinces and Countries, 1911 and 1921—con.

Birthplaces.	Population.		Increase in 10 years.		Per cent of total population born in specified country.	
	1911.	1921.	No.	p.c.	1911.	1921.
Europe—concluded						
Iceland	7,109	6,776	−333	−4·68	·10	·08
Italy	34,739	35,531	792	2·28	·48	·40
Serb-Croat-Slovene State	–	1,946	–	–	–	·02
Norway	20,968	23,127	2,159	10·30	·29	·26
Poland	[1]	29,279	–	–	–	·33
Rumania	[2]	22,779	–	–	–	·26
Russia	89,984	101,055	–	–	1·25	1·15
Sweden	28,226	27,700	−526	−1·86	·39	·32
Switzerland	–	3,479	–	–	–	·04
Ukraine	–	11,357	–	–	–	·13
Other	5,285	3,183	−2,102	−39·77	·07	·04
Asia	**40,946**	**53,636**	**12,690**	**30·99**	**·57**	**·61**
China	27,083	36,924	9,841	36·34	·37	·42
Japan	8,425	11,650	3,225	38·28	·12	·13
Syria	2,907	3,879	972	33·44	·04	·04
Turkey	1,861	401	−1,460	−78·45	·03	·01
Other	670	782	112	16·72	·01	·01
United States	303,680	374,024	70,344	23·16	4·21	4·25
West Indies	211	123	−88	−41·71	–	–
Other Countries	2,954	3,171	217	7·35	·04	·04
At Sea	807	653	−154	−19·08	·01	·01
Total Population	**7,206,643**	**8,788,483**	**1,581,840**	**21·95**	**100·00**	**100·00**

[1] Included with Russia. [2] Included with Bulgaria.

Rural and Urban Distribution of Those Born Outside of Canada.—In determining the classification of the immigrant population as rural or urban (see table on pp. 118-119 of the 1924 Year Book), the population of cities, towns and incorporated villages was counted as urban and the remainder as rural. Out of the 1,065,454 immigrant persons of British birth, 369,724 were rural and 695,730 urban residents, being 34·70 p.c. rural and 65·30 p.c., or nearly two-thirds, urban.

Of the 890,282 foreign-born, 483,615 or 54·32 p.c. were resident in rural districts and 406,667 or 45·68 p.c. in urban communities. Immigrants from Norway, Sweden, Denmark and Galicia are found more largely in rural communities than in urban ones. Also, out of 374,024 persons born in the United States, 214,563 or 57·36 p.c. are rural residents. On the other hand only a small proportion of persons born in Greece (10·67 p.c.), in Italy (24·19 p.c.), or in Poland, exclusive of Galicia (32·70 p.c.), are found outside of cities or towns. The great majority of Asiatics resident in Canada are dwellers in cities and towns, the only exception being the Japanese immigrants, of whom 61·84 p.c. reside in communities outside of cities and towns. The greater number of Japanese so classified are engaged in truck gardening in suburban areas and in fishing on the Pacific coast.

Year of Immigration of Those Born Outside of Canada.[3]—Of the total immigrant population of 1,955,736 reported in the census, 1,065,454 or 54·48 p.c. were British-born, *i.e.*, born either in the British Isles or in some other part of the British Empire outside of Canada, and 890,282 or 45·52 p.c. were foreign-born. Resident British-born immigrants exceeded foreign-born in each of the periods for which the numbers are given in Table 25 except in the war years of 1915-1918, when they were only 35·33 p.c. of the total. United States-born immigrants constituted over two-thirds of the foreign-born immigrants of that period resident in Canada at the date of the census.

[3] For detailed information on this subject, see pp. 369-419 of Vol. II of the Census of 1921, published by the Dominion Bureau of Statistics.

25.—British-born and Foreign-born Immigrant Population of Canada, by Sex and Year of Immigration, 1921.

Year of Immigration.	Immigrant Population as at June 1, 1921.								
	British-born.			Foreign-born.			Grand Total.	Per cent of immigrants	
	Total.	Male.	Female.	Total.	Male.	Female.		British.	Foreign.
	No.	No.	No.	No.	No.	No.	No.	p.c.	p.c.
1921—5 mos.	22,632	11,796	10,836	18,999	10,825	8,174	41,631	54·36	45·64
1920	67,424	31,611	35,813	36,239	20,203	16,036	103,663	65·04	34·96
1919	46,831	16,156	30,675	23,154	12,498	10,656	69,985	66·92	33·08
1915–1918	41,033	17,400	23,633	75,095	41,195	33,900	116,128	35·33	64·67
1911–1914	291,480	145,598	145,882	232,003	138,084	93,919	523,483	55·68	44·32
1900–1910	386,042	225,900	160,142	356,030	212,731	143,299	742,072	52·02	47·98
Before 1900	195,239	110,845	84,394	136,834	77,097	59,737	332,073	58·79	41·21
With year reported	1,050,681	559,306	491,375	878,354	512,633	365,721	1,929,035	54·47	45·53
With year not reported	14,773	7,766	7,007	11,928	6,837	5,091	26,701	55·33	44·67
Total for all years	**1,065,454**	**567,072**	**498,382**	**890,282**	**519,470**	**370,812**	**1,955,736**	**54·48**	**45·52**

Immigrant Population of Canadian Cities.—In Table 26 will be found an analysis of the birthplaces of the people in cities of 15,000 population and over, as in 1921, by numbers and percentages. It will be observed that Fort William and Sault Ste. Marie have the largest percentage of foreign-born and Quebec the smallest, while Victoria, Calgary and Vancouver have the highest percentage of British-born.

26.—Native-born, British-born and Foreign-born Population of Cities of 15,000 Population and over, with Percentage Distribution of Population, 1921.

Cities.	Population.					Per cent of population.			
	Total.	Native.	Immigrants.			Native.	Immigrants.		
			British.	Foreign.	Total.		British.	Foreign.	Total.
Brandon, Man.	15,397	9,434	3,986	1,977	5,963	61·3	25·9	12·8	38·7
Brantford, Ont.	29,440	20,128	7,293	2,019	9,312	68·3	24·8	6·9	31·7
Calgary, Alta.	63,305	33,097	20,991	9,217	30,208	52·2	33·2	14·6	47·8
Edmonton, Alta.	58,821	32,692	16,092	10,037	26,129	55·5	27·4	17·1	44·5
Fort William, Ont.	20,541	11,936	4,496	4,109	8,605	58·1	21·9	20·0	41·9
Glace Bay, N.S.	17,007	13,789	2,373	845	3,218	81·0	14·0	5·0	19·0
Guelph, Ont.	18,128	13,187	3,953	988	4,941	72·7	21·8	5·5	27·3
Halifax, N.S.	58,372	49,376	7,040	1,956	8,996	84·5	12·1	3·4	15·5
Hamilton, Ont.	114,151	69,805	33,412	10,934	44,346	61·1	29·3	9·6	38·9
Hull, Que.	24,117	23,379	264	474	738	96·9	1·1	2·0	3·1
Kingston, Ont.	21,753	17,331	3,531	891	4,422	79·7	16·2	4·1	20·3
Kitchener, Ont.	21,763	17,613	1,478	2,672	4,150	80·9	6·8	12·3	19·1
Lachine, Que.	15,404	12,153	2,190	1,061	3,251	78·9	14·2	6·9	21·1
London, Ont.	60,959	44,258	13,714	2,987	16,701	72·6	22·5	4·9	27·4
Moncton, N.B.	17,488	16,290	719	479	1,198	93·2	4·1	2·7	6·8
Montreal, Que.	618,506	502,924	54,807	60,775	115,582	81·3	8·9	9·8	18·7
Moose Jaw, Sask.	19,285	11,370	5,528	2,387	7,915	58·9	28·7	12·4	41·1
Ottawa, Ont.	107,843	89,748	12,297	5,798	18,095	83·2	11·4	5·4	16·8
Peterborough, Ont.	20,994	16,395	3,856	743	4,599	78·1	18·4	3·5	21·9
Quebec, Que.	95,193	92,314	1,240	1,639	2,879	97·0	1·3	1·7	3·0
Regina, Sask.	34,432	19,412	9,042	5,978	15,020	56·3	26·3	17·4	43·7
St. Catharines, Ont.	19,881	13,416	4,766	1,699	6,465	67·5	24·0	8·5	32·5
Saint John, N.B.	47,166	42,330	3,039	1,797	4,836	89·8	6·4	3·8	10·2
St. Thomas, Ont.	16,026	11,980	3,341	705	4,046	74·8	20·8	4·4	25·2
Saskatoon, Sask.	25,739	14,558	7,394	3,787	11,811	56·6	28·7	14·7	43·4
Sault Ste. Marie, Ont.	21,092	14,067	2,606	4,419	7,025	66·6	12·4	21·0	33·4
Sherbrooke, Que.	23,515	20,907	1,197	1,411	2,608	88·9	5·1	6·0	11·1
Stratford, Ont.	16,094	12,183	3,369	542	3,911	75·7	20·9	3·4	24·3
Sydney, N.S.	22,545	17,024	3,710	1,811	5,521	75·5	16·5	8·0	24·5
Three Rivers, Que.	22,367	21,201	323	843	1,166	94·8	1·4	3·8	5·2
Toronto, Ont.	521,893	324,768	149,184	47,941	197,125	62·2	28·6	9·2	37·8
Vancouver, B.C.	117,217	57,260	38,712	21,245	59,957	48·9	33·0	18·1	51·1
Victoria, B.C.	38,727	17,975	15,387	5,365	20,752	46·4	39·7	13·9	53·6
Verdun, Que.	25,001	16,730	7,373	898	8,271	66·9	29·5	3·6	33·1
Westmount, Que.	17,593	13,269	2,885	1,439	4,324	75·4	16·4	8·2	24·6
Windsor, Ont.	38,591	27,624	5,819	5,148	10,967	71·6	15·1	13·3	28·4
Winnipeg, Man.	179,087	93,854	50,671	34,562	85,233	52·4	28·3	19·3	47·6

Section 8.—Racial Origin.[1]

In five out of the six censuses of Canada since Confederation the racial origin of each person has been secured, the exception being in 1891. The object of this question is to ascertain from what basic ethnic stocks the Canadian population, more particularly the recently immigrated population, is derived. The answer "Canadian" is not accepted under this heading, as the purpose of the question is to obtain, in so far as possible, a definition of "Canadian" in terms of racial derivation. Of this procedure of the census, criticism has been received on two main grounds:—(a) that there are Canadians whose family is of several generations' residence in the country who may not know their ultimate racial origin, or who may be of very mixed racial origin; and (b) that the practice tends to perpetuate racial distinctions which it is desirable to obliterate. As against these criticisms respectively, the following must be considered:—(a) that Canadians whose family is of three or more generations' residence are enumerated and differentiated through the census question regarding the birthplace of parents; (b) that notwithstanding the desirability of racial assimilation, there are special features in connection with the process that require appraisement and study; for example, 295 children of Chinese fathers and 618 of Japanese fathers were born in Canada (not including the province of Quebec) in 1921. Again, the fact that the constitution of Canada is based on the presence of two dominant races points to the desirability of a measurement of these factors; only recently it has been widely pointed out that the original French colony, numbering 75,000 at the date of the Conquest, has expanded to over three millions to-day; measurements of this kind would be impossible if the answer "Canadian" instead of "French" were accepted under the heading of racial origin, yet undoubtedly if the descendants of the original French colonists are not "Canadians", no one is; (c) finally, racial origin is an important subject for study in a "new" country like Canada from a scientific standpoint, *i.e.*, from the standpoint of the student of ethnology, criminology, and the social and "biometric" sciences in general.

To accept the answer "Canadian" to the question on racial origin would confuse the data and defeat the purpose for which the question is asked. However, summary statistics of third-generation Canadians are shown on page 107, and details by provinces and cities will be found at pp. 255-293 of Vol. II of the Census of 1921.

Racial Distribution, 1871, 1881, 1901-1921.—The racial origins of the people of Canada as collected at the censuses of 1871, 1881, 1901, 1911 and 1921 are shown in Table **27**, while percentage figures are given in Table **28** for the populations of the various racial origins at the above censuses. Details as to the racial origins of the 1921 population were given by provinces on pp. 108-109 of the 1924 Year Book, and the racial origins of the population of the nine largest cities on p. 110 of the same volume.

During the past decade the total increase of population was 1,581,840. The increase in the population of English origin was 722,346, or 45·67 p.c. of the total; of Irish, 57,433, or 3·63 p.c.; of Scottish, 175,757, or 11·11 p.c.; of other British, 6,382, or 1·04 p.c.; of French 397,861, or 25·15 p.c. The British races were responsible for 61·66 p.c. of the total increase in population during the decade, and, together with the French population, which is almost wholly a native-born population, account for 1,369,779, or more than 86·6 p.c. of the total increase for the decade.

[1] For detailed material on racial origins, see pp. 351-565 of Vol. I of the Census of 1921, published by the Dominion Bureau of Statistics.

When the changes in the racial distribution of the population during the firs two decades of the century are considered, one of the most notable features is th increase in the population of English race from 23·47 p.c. in 1901 to 25·30 p.c. i 1911 and 28·96 p.c. in 1921. The Irish element in the population has decline from 18·41 p.c. in 1901 to 14·58 p.c. in 1911 and 12·61 p.c. in 1921, and the Scottis from 14·90 in 1901 to 13·85 in 1911 and 13·35 in 1921. The total population of th British races was 57·03 p.c. in 1901, 54·08 p.c. in 1911, and 55·40 p.c. in 192 The other great racial element in the population is the French, which constitute 30·70 p.c. of the total population in 1901, 28·52 p.c. in 1911 and 27·91 p.c. in 192 Thus 87·73 p.c. of the population were in 1901 of the two great racial stocks, 82·6 p.c. in 1911 and 83·31 p.c. in 1921. So, taking the twenty years from 1901 to 192 there has been a decline in the percentage of the British and French racial elemer to the total population.

This decline has been due in the main to the immigration of continental Eu peans to Canada during the past twenty years, which have seen the growth of th Scandinavian element in our population from 0·58 to 1·90 p.c., of the Hebrew from 0·30 p.c. to 1·44 p.c., and of the Italians from 0·20 to 0·76 p.c. The popu tion of German race, if we may accept the statistics furnished, has declined fro 5·78 p.c. of the total in 1901 to 3·35 p.c., but on the other hand, the Dutch ha increased from 0·63 p.c. in 1901 to 1·34 p.c. in 1921. Altogether, the percenta of the total population of European racial origin, other than British and Frenc increased from 8·51 p.c. of the total in 1901 to 14·15 p.c. in 1921.

Asiatic immigration to Canada in the past twenty years has been responsib for the increase of the Asiatic population from 0·44 p.c. to 0·75 p.c. of the pop lation. In the same period the population of Negro origin has declined from 0· p.c. to 0·21 p.c. of the total, and that of Indian origin from 2·38 p.c. to 1·26 p

Details of the racial distribution of the people at each census are given actual numbers and by percentages in Tables 27 and 28 respectively.

27.—Origins of the People according to the Census of 1871, 1881, 1901, 1911 and 19

NOTE.—The figures for 1871 are for the four original provinces (Ontario, Quebec, New Brunswick, Nc Scotia) only. Origins were not recorded in 1891.

Origins.	1871.	1881.	1901.	1911.	1921.
	No.	No.	No.	No.	No.
British—					
English	706,369	881,301	1,260,899	1,823,150	2,545
Irish	846,414	957,403	988,721	1,050,384	1,107
Scotch	549,946	699,863	800,154	997,880	1,173
Other	7,773	9,947	13,421	25,571	41
Total British	**2,110,502**	**2,548,514**	**3,063,195**	**3,896,985**	**4,86**
French	1,082,940	1,298,929	1,649,371	2,054,890	2,452
Austrian	–	–	10,947	42,535	107
Belgian	–	–	2,994	9,593	20
Bulgarian and Rumanian	–	–	354	5,875	15
Chinese	–	4,383	17,312	27,774	39
Czech (Bohemian and Moravian)	–	–	–	–	8
Dutch	29,662	30,412	33,845	54,986	117
Finnish	–	–	2,502	15,497	21
German	202,991	254,319	310,501	393,320	294
Greek	–	–	291	3,594	5
Hebrew	125	667	16,131	75,681	126
Hungarian	–	–	1,549	11,605	13
Indian	23,035	108,547	127,941[1]	105,492	110
Italian	1,035	1,849	10,834	45,411	66
Japanese	–	–	4,738	9,021	13
Negro	21,496	21,394	17,437	16,877	1
Polish	–	–	6,285	33,365	5

[1] Includes "half-breeds".

27.—Origins of the People according to the Census of 1871, 1881, 1901, 1911 and 1921 —concluded.

Origins.	1871.	1881.	1901.	1911.	1921.
	No.	No.	No.	No.	No.
Russian	607	1,227	19,825	43,142	100,064
Scandinavian[2]	1,623	5,223	31,042	107,535	167,359
Serbo-Croatian	–	–	–	–	3,906
Swiss	2,962	4,588	3,865	6,625	12,837
Turkish	–	–	1,681	3,880	313
Ukrainian—Bukovinian	–	–	[3]	9,960	1,616
Galician	–	–	5,682	35,158	24,456
Ruthenian	–	–	[4]	29,845	16,861
Ukrainian	–	–	–	–	63,788
Various	1,222	3,952	1,454	20,652	18,915
Unspecified	7,561	40,806	31,539	147,345	21,249
Grand Total	**3,485,761**	**4,324,810**	**5,371,315**	**7,206,643**	**8,788,483**

[2] Includes Danish, Icelandic, Norwegian and Swedish; in 1921 they were respectively 21,124, 15,876, 88,856 and 61,503. [3] Included with Austrians. [4] Included with Galicians.

28.—Percentage of the People of each Racial Origin to the total Population, 1871, 1881, 1901, 1911 and 1921.

Origins.	Number per cent of population.				
	1871.	1881.	1901.	1911.	1921.
British—	p.c.	p.c.	p.c.	p.c.	p.c.
English	20·26	20·38	23·47	25·30	28·96
Irish	24·28	22·14	18·41	14·58	12·61
Scotch	15·78	16·18	14·90	13·85	13·35
Other	0·23	0·23	0·25	0·35	0·48
Total British	**60·55**	**58·93**	**57·03**	**54·08**	**55·40**
French	31·07	30·03	30·70	28·52	27·91
Austrian	–	–	0·20	0·59	1·23
Belgian	–	–	0·06	0·13	0·23
Bulgarian and Rumanian	–	–	0·01	0·08	0·17
Chinese	–	0·10	0·32	0·39	0·45
Czech (Bohemian and Moravian)	–	–	–	–	0·10
Dutch	0·85	0·70	0·63	0·76	1·34
Finnish	–	–	0·05	0·22	0·24
German	5·82	5·88	5·78	5·46	3·35
Greek	–	–	0·01	0·05	0·06
Hebrew	–	0·02	0·30	1·05	1·44
Hungarian	–	–	0·03	0·16	0·14
Indian	0·66	2·51	2·38	1·46	1·26
Italian	0·03	0·04	0·20	0·63	0·76
Japanese	–	–	0·09	0·13	0·18
Negro	0·62	0·50	0·32	0·23	0·21
Polish	–	–	0·12	0·46	0·61
Russian	0·02	0·03	0·37	0·60	1·14
Scandinavian	0·05	0·12	0·58	1·49	1·90
Serbo-Croatian	–	–	–	–	0·04
Swiss	0·08	0·11	0·07	0·09	0·15
Turkish	–	–	0·03	0·05	0·01
Ukrainian—Bukovinian	–	–	–	0·14	0·02
Galician	–	–	0·11	0·49	0·28
Ruthenian	–	–	–	0·41	0·19
Ukrainian	–	–	–	–	0·73
Various	0·03	0·09	0·03	0·29	0·22
Unspecified	0·22	0·94	0·59	2·04	0·24
Total	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**

Section 9.—Religions.[1]

The religions of the people of Canada have been recorded at each of the censuses taken since 1871, the instruction book issued to the enumerators at the census of 1921 stating that the religion of each person should be recorded, specifying the denomination, sect or community to which the persons belonged or adhered, or which

[1] For detailed information on the religions of the population, see pp. 567-768 of Vol. I of the Census of 1921, published by the Dominion Bureau of Statistics.

he or she favoured. The number of persons stating their preference for each of the principal religious bodies at each of the censuses is given in Table 29, while percentage figures are presented in Table 30.

In recent years there will be noted certain changes in the religious distribution of the population, corresponding in a considerable degree to the changes in racial origin noted above. For example, contemporaneously with the increase in the percentage of persons of English race during the past 20 years, there has taken place an increase in the Anglicans from 12·69 p.c. of the population in 1901 to 16·02 p.c. in 1921. The Presbyterians, to some extent as a result of Scottish immigration, have also increased from 15·68 p.c. of the total population in 1901 to 16·04 p.c. in 1921. Further, synchronizing with increasing immigration from continental Europe, the Lutherans have increased in the same period from 1·72 to 3·26 p.c., the Greek Church from 0·29 to 1·93 p.c., and the Jews from 0·31 to 1·42 p.c., while increasing Asiatic immigration is reflected in the growth of the adherents of Eastern religions from 0·29 to 0·46 p.c.

Of the total population of 1921 (8,788,483), 8,572,100 or 97·5 p.c. are classified as belonging to some Christian denomination or sect, 172,529, or 1·9 p.c., as non-Christian, this figure including 125,197 Jews, 40,554 of Eastern religions and 6,778 Pagans, leaving less than 0·5 p.c. otherwise reported.

On pages 112-113 of the 1924 Year Book appears a table giving for Canada and for the provinces the number of adherents of each of 64 specified religions as well as (in a footnote) the totals for Canada for 57 others. In addition, there were 119 sects enumerated, each with fewer than 10 adherents. Thus altogether 240 distinct sects or denominations are reported, as compared with 203 in 1911 and 157 in 1901.

29.—Religions of the People at each Decennial Census, 1871-1921.

Religions.	1871.	1881.	1891.	1901.	1911.	1921.
	No.	No.	No.	No.	No.	No.
Adventists	6,179	7,211	6,354	8,058	10,406	14,...
Agnostics	–	–	–	3,613	3,110	...
Anglicans	494,049	574,818	646,059	681,494	1,043,017	1,407,...
Baptists[1]	239,343	296,525	303,839	318,005	382,720	421,...
Brethren	2,305	8,831	11,637	8,014	9,278	11,...
Buddhists	–	–	–	10,407	10,012	11,...
Christians	–	–	–	7,484	17,264	12,...
Christian Science	–	–	–	2,619	5,073	13,...
Confucians	–	–	–	5,115	14,562	27,...
Congregationalists	21,829	26,900	28,157	28,293	34,054	30,...
Disciples of Christ	–	20,193	12,763	14,900	11,329	9,...
Doukhobors	–	–	–	8,775	10,493	12,...
Evangelical Association	4,701	–	–	10,193	10,595	13,...
Friends (Quakers)	7,345	6,553	4,650	4,100	4,027	3,...
Greek Church	18	–	–	15,630	88,507	16...
Jews	1,115	2,393	6,414	16,401	74,564	125,...
Lutherans	37,935	46,350	63,982	92,524	229,864	286,...
Mennonites (inc. Hutterites)	–	–	[2]	31,797	44,625	52,...
Methodists	567,091	742,981	847,765	916,886	1,079,993	1,15...,...
Mormons	534	–	–	6,891	15,971	1...,...
No religion	5,146	2,634	–	4,810	26,027	21,...
Pagans	1,886	4,478	–	15,107	11,840	6,...
Plymouth Brethren	2,229	–	–	3,040	3,438	...
Presbyterians	544,998	676,165	755,326	842,531	1,116,071	1,40...,...
Protestants	10,146	6,519	12,253	11,612	30,265	3...,...
Roman Catholics	1,492,029	1,791,982	1,992,017	2,229,600	2,833,041	3,3...,...
Salvation Army	–	–	13,949	10,308	18,834	2...,...
Union Church	–	–	–	29	633	...
Unitarians	2,275	2,126	1,777	1,934	3,224	...
Other sects	27,553	21,382	36,942	17,923	31,316	5...,...
Not given	17,055	86,769	89,355	43,222	32,490	1,...
Total	**3,485,761**	**4,324,810**	**4,833,239**	**5,371,315**	**7,206,643**	**8,78...,...**

[1] Including Tunkers in 1871, 1881, 1891. [2] Included with Baptists in 1891.

30.—Percentage of Specified Denominations to Total Population in Census Years, 1871-1921.

Denominations.	1871.	1881.	1891.	1901.	1911.	1921.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Adventists	0·18	0·17	0·13	0·15	0·14	0·16
Anglicans	14·17	13·35	13·37	12·69	14·47	16·02
Baptists	6·87	6·86	6·29	5·92	5·31	4·80
Christians	–	–	–	0·13	0·23	0·14
Congregationalists	0·63	0·62	0·58	0·53	0·47	0·35
Disciples of Christ	–	0·47	0·26	0·28	0·16	0·11
Eastern religions[1]	–	–	0·19	0·29	0·39	0·46
Evangelical Association	0·13	–	–	0·19	0·15	0·16
Greek Church	–	–	–	0·29	1·23	1·93
Jews	0·03	0·06	0·13	0·31	1·03	1·42
Lutherans	1·09	1·06	1·32	1·72	3·19	3·26
Mennonites[2]	–	–	–	0·59	0·62	0·67
Methodists	16·27	17·11	17·54	17·07	14·98	13·19
Mormons	0·02	–	–	0·13	0·22	0·22
No religion	0·15	–	–	0·09	0·36	0·25
Pagans	0·05	0·10	0·56	0·28	0·16	0·08
Presbyterians	15·63	15·64	15·63	15·68	15·48	16·04
Protestants	0·29	0·15	0·25	0·22	0·42	0·35
Roman Catholics	42·80	41·43	41·21	41·51	39·31	38·57
Salvation Army	–	–	0·29	0·19	0·26	0·28
All others	1·20	0·37	0·59	0·94	0·95	1·32
Unspecified	0·49	2·07	1·66	0·80	0·47	0·22
Total	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**

[1] Eastern Religions includes Confucians, Buddhists, Mohammedans, Shintos, Sikhs, Hindus, Bahais, Taoists.

[2] Included with Baptists in 1891.

Section 10.—Rural and Urban Population.[3]

In Table 31 are given statistics showing the growth of rural and urban population respectively since 1891. For the purposes of the census, the population residing in cities, towns and incorporated villages has been defined as urban, and that outside of such localities as rural. Thus the distinction here made between "rural" and "urban" population is a distinction of provincial legal status rather than of size of aggregations of population within limited areas. Since the laws of the various provinces differ in regard to the population necessary before a municipality may be incorporated as urban (the laws of Saskatchewan, for example, making provision that 50 people actually resident on an area not greater than 640 acres may claim incorporation as a village, while the Ontario law now requires that villages asking for incorporation shall have a population of 750 on an area not exceeding 500 acres), the line of demarcation between rural and urban population is not uniformly drawn throughout the Dominion, as far as comparable aggregations of population are concerned. To a limited extent, however, Table 33 will permit the student of population statistics to make, at least for Canada as a whole, his own line of demarcation between rural and urban population.[4]

While a summary comparison between urbanization in Canada in 1921 and in the United States in 1920 would lead us to the conclusion that our country, though far less densely peopled than the United States, had an almost equally large per-

[3] See also pp. 343-349 of Vol. I of the Census of 1921, published by the Dominion Bureau of Statistics.

[4] In the United States, urban population is classified by the Census Bureau as that residing in cities and other incorporated places having 2,500 inhabitants or more, and in "towns" having 2,500 inhabitants or more in Massachusetts, New Hampshire and Rhode Island. While such "towns", under the forms of local government existing in these states, are partly rural in character, the United States Census Bureau considers that the total urban population of these states is not greatly exaggerated thereby.

centage of its population in urban communities, *viz.*, 49·52 in Canada as compared with 51·4 in the United States, the fact that in the United States inhabitants of places having under 2,500 population are included with rural population, while in Canada the inhabitants of many places with less than 100 population are classed as urban, must be taken into account. A fairer basis of comparison is secured if the same population limits are taken for both countries, as may be done by using Table **33.** Thus, at the census of 1920, the United States had 25·9 p.c. of its population resident in cities of 100,000 and over, while Canada in 1921 had only 18·87 p.c. of its population in such places. The United States had an additional 16·4 p.c. of its population residing in cities of between 10,000 and 100,000 population and 4·7 p.c. in cities and towns of 5,000 to 10,000, while Canada had in places of these categories only 13·32 p.c. and 4·36 p.c. respectively of its population. Thus, taking all places of 5,000 and over—the lowest population for which comparative figures are readily available—47 p.c. of the population of the United States resided in such places as compared with 36·55 p.c. of the population of Canada, showing the much higher degree of urbanization which has been reached in the United States—a natural thing in an older settled and more densely peopled country.

On the basis of the census classification, it is obvious from Table **31** that in the last decade, as in the previous one, urban communities absorbed somewhat over two-thirds of the total increase in population, with the result that the urban population of Canada was in 1921 nearly equal to the rural. Out of every 1,000 persons in the country, 505 were resident on June 1, 1921, in rural and 495 in urban communities, as compared with 546 in rural and 454 in urban communities on June 1, 1911, 625 in rural and 375 in urban communities in 1901, and 682 in rural and 318 in urban communities in 1891. The general fact that rural populations are proportionately more largely male and urban populations more largely female is brought out in Table **34.**

From Table **33,** showing the distribution of urban population in Canada by size of cities and towns, it becomes evident that for the first time in its census history Canada possesses cities of more than half a million population. These are Montreal and Toronto, with 618,506 and 521,893 inhabitants respectively, the former having in its neighbourhood several "satellite" cities, Verdun, Westmount, Lachine, Outremont, which, with other smaller towns in its vicinity, bring the population of "Greater Montreal" to the 700,000 mark. No other city has attained the 200,000 mark but during the past decade Hamilton and Ottawa have been added to Winnipeg and Vancouver as cities of over 100,000 population, while Quebec, which in 1911 was, together with Hamilton and Ottawa, in the 50,000 to 100,000 class, has been joined in that class, though at a considerable interval, by Calgary, London, Edmonton and Halifax. In the 25,000 to 50,000 class, there were in 1921 the seven cities Saint John, Victoria, Windsor, Regina, Brantford, Saskatoon and Verdun. Details of the population of these and other smaller cities and towns of 5,000 and over are given by censuses from 1871 to 1921 in Table **35,** while the populations of urban communities having a population of from 1,000 to 5,000 in 1921 are given for 1911 and 1921 in Table **36.**

31.—Rural and Urban Population, by Provinces and Territories, 1891, 1901, 1911 and 1921.

Provinces.	1891.		1901.	
	Rural.	Urban.	Rural.	Urban.
Prince Edward Island	94,823	14,255	88,304	14,955
Nova Scotia	373,403	76,993	330,191	129,383
New Brunswick	272,362	48,901	253,835	77,285
Quebec	988,820	499,715	994,833	654,065
Ontario	1,295,323	818,998	1,246,969	935,978
Manitoba	111,498	41,008	184,775[3]	70,436[3]
Saskatchewan	[1]	–	77,013[3]	14,266[3]
Alberta	[1]	–	54,489[2]	18,533[2]
British Columbia	60,945	37,228	88,478	90,179
Yukon Territory	[1]	–	18,077	9,142
Northwest Territories	[1]	–	20,129	–
Royal Canadian Navy	–	–	–	–
Total	**3,296,141**	**1,537,098**	**3,357,093**	**2,014,222**

Provinces.	1911.		1921.		Numerical increase in decade 1911–21.	
	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.
Prince Edward Island	78,758	14,970	69,522	19,093	−9,236	4,123
Nova Scotia	306,210	186,128	296,799	227,038	−9,411	40,910
New Brunswick	252,342	99,547	263,432	124,444	11,090	24,897
Quebec	1,038,934[5]	966,842[5]	1,038,630	1,322,569	−304	355,727
Ontario	1,198,803[4]	1,328,489	1,227,030	1,706,632	28,227	378,143
Manitoba	261,029[4]	200,365	348,502	261,616	87,473	61,251
Saskatchewan	361,037[3]	131,395[3]	538,552	218,958	177,515	87,563
Alberta	236,633[2]	137,662[2]	365,550	222,904	128,917	85,242
British Columbia	188,796	203,684	277,020	247,562	88,224	43,878
Yukon Territory	4,647	3,865	2,851	1,306	−1,796	−2,559
Northwest Territories	6,507[4]	–	7,988	–	1,481	–
Royal Canadian Navy	–	–	485	–	485	–
Total	**3,933,696**	**3,272,947**	**4,436,361**	**4,352,122**	**502,665**	**1,079,175**

[1] The population (98,967) in territory now comprised in the provinces of Alberta, Saskatchewan and in the Yukon and Northwest Territories was classified as rural in the census of 1891. [2]Volume I, Census 1911, places the urban population of Alberta for that year at 141,937. Included in this figure was the population (5,250) of twelve places which, according to the Report of the Municipal Commissioner for Alberta, were not then incorporated. These places were Aetna, Banff, Bankhead, Bellevue, Bickerdike, Canmore, Cardiff, Exshaw, Hillcrest, Passburg, Queenston and Elmpark. The correction resulting from this and from other small adjustments consequent upon more definite knowledge as to incorporated areas, places the urban population for 1911 at 137,662. Similar corrections have been made in the urban and rural figures for the census of 1901. [3]As corrected in Census Report, Prairie Provinces, 1916. [4]As changed by Extension of Boundaries Act, 1912. [5]The urban population of 970,791 shown in Volume I, Census 1911, is reduced to 966,842 and the rural increased from 1,032,441 to 1,038,934 by the transfer of the population of Maniwaki, Martinville, Moisie, St. Bruno, St. Martin and St. Vincent de Paul from urban to rural, by adjustments in area of the villages of Ste. Anne and Ste. Geneviève, and by the Extension of Boundaries Act, 1912.

32.—Percentage Distribution of Rural and Urban Population by Provinces and Territories, 1891, 1901, 1911 and 1921.

Note.—In the use of this table, reference should be made to the notes appended to the preceding table showing rural and urban population by numbers.

Provinces.	1891.		1901.		1911.		1921.	
	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Prince Edward Island	86·93	13·07	85·52	14·48	84·03	15·97	78·45	21·55
Nova Scotia	82·91	17·09	71·85	28·15	62·20	37·80	56·66	43·34
New Brunswick	84·78	15·22	76·66	23·34	71·71	28·29	67·92	32·08
Quebec	66·43	33·57	60·33	39·67	51·80	48·20	43·99	56·01
Ontario	61·26	38·74	57·12	42·88	47·43	52·57	41·83	58·17
Manitoba	73·11	26·89	72·40	27·60	56·57	43·43	57·12	42·88
Saskatchewan	[6]	–	84·37	15·63	73·32	26·68	71·10	28·90
Alberta	[6]	–	74·62	25·38	63·22	36·78	62·12	37·88
British Columbia	62·08	37·92	49·52	50·48	48·10	51·90	52·81	47·19
Yukon Territory	[6]	–	66·41	33·59	54·59	45·41	68·58	31·42
Northwest Territories	[6]	–	100·00	–	100·00	–	100·00	–
Royal Canadian Navy	–	–	–	–	–	–	100·00	–
Total	**68·20**	**31·80**	**62·50**	**37·50**	**54·58**	**45·42**	**50·48**	**49·52**

[6] The population in the territory now comprised in the provinces of Alberta and Saskatchewan and the Yukon and Northwest Territories was classified as rural in the census of 1891.

33.—Urban Population of Canada, divided by Size of Municipality Groups, 1901, 1911 and 1921.

In Cities and Towns of	1901.			1911.			1921.		
	Number of Places.	Population.	Per cent of Total Pop.	Number of Places.	Population.	Per cent of Total Pop.	Number of Places.	Population.	Per cent of Total Pop.
Over 500,000	–	–	–	–	–	–	2	1,140,399	12·97
Between—									
400,000 and 500,000	–	–	–	1	490,504	6·81	–	–	–
300,000 and 400,000	1	328,172	6·11	1	381,833	5·30	–	–	–
200 000 and 300,000	1	209,892	3·91	–	–	–	–	–	–
100,000 and 200,000	–	–	–	2	236,436	3·28	4	518,298	5·90
50,000 and 100,000	3	181,402	3·38	3	247,741	3·44	5	336,650	3·83
25,000 and 50,000	5	188,869	3·52	6	241,858	3·34	7	239,096	2·72
15,000 and 25,000	3	55,499	1·03	11	193,977	2·69	19	370,990	4·22
10,000 and 15,000	8	96,913	1·80	18	226,251	3·14	18	224,033	2·55
5,000 and 10,000	36	270,032	5·03	45	321,179	4·46	54	382,762	4·36
3,000 and 5,000	51	195,621	3·64	67	216,152	3·00	72	272,720	3·10
1,000 and 3,000	196	331,136	6·16	235	409,845	5·68	293	492,116	5·59
500 and 1,000	167	121,591	2·26	238	173,414	2·41	290	215,648	2·44
Under 500	–	35,095	0·65	–	133,757	1·86	–	159,410	1·84
Total	–	**2,014,222**	**37·50**	–	**3,272,947**	**45·42**	–	**4,352,122**	**49·52**

34.—Percentage of Males to Females in Rural and Urban Populations, 1921.

Provinces.	Rural.	Urban.	Provinces.	Rural.	Urban.
	p.c.	p.c.		p.c.	p.c.
Prince Edward Island	107	89	Alberta	134	106
Nova Scotia	108	98	British Columbia	131	115
New Brunswick	109	92	Yukon Territory	219	195
Quebec	107	94	N.W. Territories	107	–
Ontario	113	95			
Manitoba	119	101	**Canada**	**116**	**97**
Saskatchewan	126	107			

35.—Population of Cities and Towns having over 5,000 Inhabitants in 1921, compared with 1871-81-91-1901-11.

NOTE.—The cities and towns in which a Board of Trade exists are indicated by an asterisk (*), and those in which there is a Chamber of Commerce by a dagger (†). In all cases the population is for the city or town municipality as it existed in 1921.

Cities and Towns.	Provinces.	Population.					
		1871.	1881.	1891.	1901	1911.	1921.
*Montreal	Quebec	115,000	155,238	219,616	328,172	490,504[1]	618,50
*Toronto	Ontario	59,000	96,196	181,215	209,892	381,833[2]	521,89
*Winnipeg	Manitoba	241	7,985	25,639	42,340	136,035	179,08
*Vancouver	British Columbia	–	–	13,709	27,010	100,401	117,21
†Hamilton	Ontario	26,880	36,661	48,959	52,634	81,969	114,15
*Ottawa	"	24,141	31,307	44,154	59,928	87,062	107,84
*Quebec	Quebec	59,699	62,446	63,090	68,840	78,710	95,19
*Calgary	Alberta	–	–	3,876	4,392	43,704	63,30
†London	Ontario	18,000	26,266	31,977	37,976	46,300	60,95
*Edmonton	Alberta	–	–	–	4,176	31,064[3]	58,82
*Halifax	Nova Scotia	29,582	36,100	38,437	40,832	46,619	58,37
*Saint John	New Brunswick	41,325	41,353	39,179	40,711	42,511	47,16
†Victoria	British Columbia	3,270	5,925	16,841	20,919	31,660	38,72
*Windsor	Ontario	4,253	6,561	10,322	12,153	17,829	38,59
*Regina	Saskatchewan	–	–	–	2,249	30,213	34,43
†Brantford	Ontario	8,107	9,616	12,753	16,619	23,132	29,44
*Saskatoon	Saskatchewan	–	–	–	113	12,004	25,73
Verdun	Quebec	–	278	296	1,898	11,629	25,00
†Hull	"	3,800	6,890	11,264	13,993	18,222	24,11

35.—Population of Cities and Towns having over 5,000 Inhabitants in 1921, compared with 1871-81-91-1901-11—continued.

Cities and Towns.	Provinces.	Population.					
		1871.	1881.	1891.	1901.	1911.	1921.
*Sherbrooke	Quebec	4,432	7,227	10,110	11,765	16,405	23,515
*Sydney	Nova Scotia	–	1,480	2,427	9,909	17,723	22,545
†Three Rivers	Quebec	7,570	8,670	8,334	9,981	13,691	22,367
*Kitchener	Ontario	2,743	4,054	7,425	9,747	15,196	21,763
*Kingston	"	12,407	14,091	19,263	17,961	18,874	21,753
*Sault Ste. Marie	"	879	780	2,414	7,169	14,920[4]	21,092
†Peterborough	"	4,611	6,812	9,717	12,886	18,360	20,994
*Fort William	"	–	–	–	3,633	16,499	20,541
*St. Catharines	"	7,864	9,631	9,170	9,946	12,484	19,881
*Moose Jaw	Saskatchewan	–	–	–	1,558	13,823	19,285
*Guelph	Ontario	6,878	9,890	10,537	11,496	15,175	18,128
Westmount	Quebec	200	884	3,076	8,856	14,579	17,593
*Moncton	New Brunswick	600	5,032	8,762	9,026	11,345	17,488
*Glace Bay	Nova Scotia	–	–	2,459	6,945	16,562	17,007
*St. Catharines	Ontario	4,313	8,239	9,500	9,959	12,946	16,094
*St. Thomas	"	2,197	8,367	10,366	11,485	14,054	16,026
†Lachine	Quebec	1,696	2,406	3,761	6,365	11,688[5]	15,404
*Brandon	Manitoba	–	–	3,778	5,620	13,839	15,397
*Port Arthur	Ontario	–	–	–	3,214	11,220	14,886
†Sarnia	"	2,929	3,874	6,692	8,176	9,947	14,877
*Niagara Falls	"	1,600	2,347	3,349	5,702	9,248	14,764
*New Westminster	British Columbia	–	1,500	6,678	6,499	13,199	14,495
*Chatham	Ontario	5,873	7,873	9,052	9,068	10,770	13,256
Outremont	Quebec	–	387	795	1,148	4,820	13,249
†Galt	Ontario	3,827	5,187	7,535	7,866	10,299	13,216
*St. Boniface	Manitoba	–	1,283	1,553	2,019	7,483	12,821
*Charlottetown and Royalty	P. E. Island	8,807	11,485	11,373	12,080	11,203	12,347
†Belleville	Ontario	7,305	9,516	9,916	9,117	9,876	12,206
*Owen Sound	"	3,369	4,426	7,497	8,776	12,558	12,190
*Oshawa	"	3,185	3,992	4,066	4,394	7,436	11,940
*Lethbridge	Alberta	–	–	–	2,072	9,035	11,097
†St. Hyacinthe	Quebec	3,746	5,321	7,016	9,210	9,797	10,859
*North Bay	Ontario	–	–	–	2,530	7,737	10,692
†Shawinigan Falls	Quebec	–	–	–	–	4,265	10,625
†Levis	"	6,691	7,597	7,301	9,242	8,703[6]	10,470
*Brockville	Ontario	5,102	7,609	8,791	8,940	9,374	10,043
†Amherst	Nova Scotia	–	2,274	3,781	4,964	8,973	9,998
*Woodstock	Ontario	3,982	5,373	8,612	8,833	9,320	9,935
*Medicine Hat	Alberta	–	–	–	1,570	5,608	9,634
†Valleyfield	Quebec	1,800	3,906	5,515	11,055	9,449	9,215
†Joliette	"	3,047	3,268	3,347	4,220	6,346	9,113
*Nanaimo and suburbs	British Columbia	–	1,645	4,595	6,130	8,306	9,088
*New Glasgow	Nova Scotia	–	2,595	3,776	4,447	6,383	8,974
†Chicoutimi	Quebec	1,393	1,935	2,277	3,826	5,880	8,937
*Welland	Ontario	1,110	1,870	2,035	1,863	5,318	8,654
*Sudbury	"	–	–	–	2,027	4,150	8,621
*Sydney Mines	Nova Scotia	–	2,340	2,442	3,191	7,470	8,327
†Sorel	Quebec	5,636	5,791	6,669	7,057	8,420	8,174
*Fredericton	New Brunswick	6,006	6,218	6,502	7,117	7,208	8,114
*Dartmouth	Nova Scotia	–	3,786	6,252	4,806	5,058	7,899
Thetford Mines	Quebec	–	–	–	3,256	7,261	7,886
*Pembroke	Ontario	1,508	2,820	4,401	5,156	5,626	7,875
*St. Johns	Quebec	3,022	4,314	4,722	4,030	5,903	7,734
Rivière du Loup	"	1,541	2,291	4,175	4,569	6,774	7,703
*North Vancouver	British Columbia	–	–	–	–	8,196[7]	7,652
*Orillia	Ontario	1,322	2,910	4,752	4,907	6,828	7,631
Grand'Mère	Quebec	–	–	–	2,511	4,783	7,631
*Lindsay	Ontario	4,049	5,080	6,081	7,003	6,964	7,620
*Truro	Nova Scotia	–	3,461	5,102	5,993	6,107	7,562
*Prince Albert	Saskatchewan	–	–	–	1,785	6,254	7,558
*Cornwall	Ontario	2,033	4,468	6,805	6,704	6,598	7,419
*Yarmouth	Nova Scotia	2,500	3,485	6,089	6,430	6,600	7,073
Walkerville	Ontario	–	–	–	1,595	3,302	7,059
*Midland	"	–	1,095	2,088	3,174	4,663	7,016
*Barrie	"	3,398	4,854	5,550	5,949	6,420	6,936
*Smiths Falls	"	1,150	2,087	3,864	5,155	6,370	6,790
*Granby	Quebec	876	1,040	1,710	3,773	4,750	6,785
*Portage la Prairie	Manitoba	–	–	3,363	3,901	5,892	6,766
†Cap de la Madeleine	Quebec	–	–	–	–	–	6,738
*North Sydney	Nova Scotia	–	1,520	2,513	4,646	5,418	6,585
*Prince Rupert	British Columbia	–	–	–	–	4,184	6,393
*Trenton	Ontario	1,796	3,042	4,363	4,217	3,988	5,902
*Waterloo	"	1,594	2,066	2,941	3,587	4,359	5,883

35.—Population of Cities and Towns having over 5,000 Inhabitants in 1921, compared with 1871-81-91-1901-11—concluded.

Cities and Towns.	Provinces.	Population.					
		1871.	1881.	1891.	1901.	1911.	1921.
*Collingwood	Ontario	2,829	4,445	4,939	5,755	7,090	5,882
Ford	"	–	–	–	–	–	5,870
*Springhill	Nova Scotia	–	900	4,813	4,559	5,713	5,681
*New Waterford	"	–	–	–	–	–	5,615
*La Tuque	Quebec	–	–	–	–	2,934	5,603
*Campbellton	New Brunswick	–	–	–	2,652	3,817	5,570
*Hawkesbury	Ontario	1,671	1,920	2,042	4,150	4,400	5,544
†St. Jérôme	Quebec	1,159	2,032	2,868	3,619	3,473	5,491
*Preston	Ontario	1,408	1,419	1,843	2,308	3,883	5,423
*Kenora	"	–	–	1,806	5,202	6,158	5,407
*Cobourg	"	4,442	4,957	4,829	4,239	5,074	5,327
Eastview	"	–	–	–	776	3,169	5,324
Stellarton	Nova Scotia	–	–	–	2,335	3,910	5,312
*Nelson	British Columbia	–	–	–	5,273[3]	4,476	5,230
Magog	Quebec	–	–	2,100	3,516	3,978	5,159
*Yorkton	Saskatchewan	–	–	–	700	2,309	5,151
Ingersoll	Ontario	4,022	4,318	4,191	4,573	4,763	5,150

[1]Includes Maisonneuve, Cartierville, Bordeaux and Sault-au-Recollet. [2]Includes North Toronto, less 67 transferred in 1911 to Township of York. [3]Includes town of Strathcona and villages of North and West Edmonton. [4]Includes town of Steelton. [5]Includes parish of Lachine and Summerlea town. [6]Includes Notre-Dame de la Victoire. [7]Includes North Vancouver District. [8]Includes suburbs in 1901.

36.—Population of Towns and Villages having between 1,000 and 5,000 Inhabitants in 1921, as compared with 1901 and 1911.

Towns and Villages.	1901.	1911.	1921.
Prince Edward Island.			
Summerside	2,875	2,678	3,228
Souris	1,140	1,089	1,094
Nova Scotia.			
Westville	3,471	4,417	4,550
Windsor	3,398	3,452	3,591
Bridgewater	2,203	2,775	3,147
Pictou	3,235	3,179	2,988
Inverness	306	2,719	2,963
Trenton	1,274	1,749	2,844
Lunenburg	2,916	2,681	2,792
Parrsboro	3,391	2,856	2,748
Kentville	1,731	2,304	2,717
Dominion	1,546	2,589	2,390
Liverpool	1,937	2,109	2,294
Antigonish	1,838	1,787	1,746
Wolfville	1,412	1,458	1,743
Joggins	1,088	1,648	1,732
Canso	1,479	1,617	1,626
Wedgeport	1,026	1,392	1,424
Oxford	1,285	1,392	1,402
Shelburne	1,445	1,435	1,360
Digby	1,150	1,247	1,230
Mahone Bay	866	951	1,177
Louisburg	1,046	1,006	1,152
Bridgetown	858	996	1,086
New Brunswick.			
Chatham	4,868	4,666	4,506
Edmundston	–	1,821	4,035
Newcastle	2,507	2,945	3,507
St. Stephen	2,840	2,836	3,452
Woodstock	3,644	3,856	3,380
Bathurst	1,044	960	3,327
Sussex	1,398	1,906	2,198
Sackville	1,444	2,039	2,173
Milltown	2,044	1,804	1,976
Shediac	1,075	1,442	1,973
Dalhousie	862	1,650	1,958
Devon	–	–	1,924
Marysville	1,892	1,837	1,614
New Brunswick—concluded.			
Grand Falls	644	1,280	1,327
Sunny Brae	–	–	1,171
Richibucto	100	871	1,158
St. George	733	988	1,110
St. Andrews	1,064	987	1,065
Quebec.			
Lauzon	3,416	3,978	4,966
Jonquière	–	2,354	4,851
Longueuil (city)	2,835	3,972	4,682
Montmagny	1,919	2,617	4,145
St. Lambert	1,362	3,344	3,890
Buckingham	2,936	3,854	3,835
East Angus	–	–	3,802
Victoriaville	1,693	3,028	3,759
Rimouski	1,804	3,097	3,612
Coaticook	2,880	3,165	3,554
St. Pierre	505	2,201	3,535
Farnham	3,114	3,560	3,343
Beauport	–	–	3,240
St. Laurent	1,390	1,860	3,232
Mégantic	2,717	2,816	3,140
St. Jérôme de Matane	1,176	2,056	3,050
Ste. Thérèse	1,541	2,120	3,043
Aylmer	2,291	3,109	2,970
Drummondville	1,450	2,725	2,852
St. Agathe des Monts	1,073	2,020	2,812
Mont Joli	822	2,141	2,799
Black Lake	1,316	2,645	2,656
Pointe Claire St. Joachim	555	793	2,617
Bromptonville	–	1,239	2,603
Lachute	2,022	2,407	2,592
Kenogami	–	–	2,557
Iberville	1,512	1,905	2,454
Richmond	2,057	2,175	2,450
Nicolet	2,225	2,593	2,342
Windsor	2,149	2,233	2,330
Baie St. Paul	1,408	1,857	2,291
Beauharnois	1,976	2,015	2,250
Ste. Anne de Bellevue	1,343	1,416	2,212
Mont-Laurier	–	752	2,211

36.—Population of Towns and Villages having between 1,000 and 5,000 Inhabitants in 1921, as compared with 1901 and 1911—continued.

Towns and Villages.	1901.	1911.	1921.
Quebec—concluded.			
Bagotville	507	1,011	2,204
Berthier	1,364	1,335	2,193
Asbestos	783	2,224	2,189
Laprairie	1,451	2,388	2,158
Roberval	1,248	1,737	2,068
Loretteville	1,555	1,588	2,066
Waterloo	1,797	1,886	2,063
Terrebonne	1,822	1,990	2,056
Plessisville	1,586	1,559	2,032
Laval des Rapides	–	–	1,989
Pointe Gatineau	1,583	1,751	1,919
Montmorency	–	1,717	1,904
Malbaie	826	1,449	1,883
Montreal West	352	703	1,882
Ste. Rose	1,154	1,480	1,811
Saindon	–	–	1,793
St. Tite	991	1,438	1,783
Montreal East	–	–	1,776
Louiseville	1,565	1,675	1,772
Pointe-aux-Trembles	–	1,167	1,764
Chandler	–	–	1,756
Marieville	1,306	1,587	1,748
Grande Baie	–	1,355	1,735
Sacré-Cœur de Jésus	206	996	1,709
St. Raymond	1,272	1,653	1,693
Bedford	1,364	1,432	1,669
St. Gabriel de Brandon	1,199	1,602	1,667
St. Joseph (Richelieu)	647	1,416	1,658
Ste. Anne de Beaupré	847	2,066	1,648
Disraeli	1,018	1,606	1,646
Lennoxville	1,120	1,211	1,554
Acton Vale	1,175	1,402	1,549
St. Marc-des-Carrières	296	1,224	1,492
Amos	–	–	1,488
Dorval	481	1,005	1,466
Bienville	851	1,004	1,462
St. Casimir	–	–	1,457
Trois-Pistoles	–	–	1,454
Beauceville	–	1,677	1,448
St. Joseph (Beauce)	1,117	1,440	1,445
Rock Island	615	861	1,442
Pont Rouge	–	–	1,419
Belœil	702	1,501	1,418
St. Benoit Joseph Labre	–	1,070	1,416
Huntingdon	1,122	1,265	1,401
Pierreville	1,108	1,363	1,394
Montreal North	–	–	1,360
Lac-au-Saumon	–	1,171	1,354
St. Jacques	–	–	1,332
L'Assomption	1,605	1,747	1,320
Ste. Marie	–	–	1,311
St. Félicien	–	581	1,306
Courville	–	–	1,293
Danville	1,017	1,331	1,290
Charlesbourg	–	–	1,267
Giffard	–	–	1,254
Arthabaska	995	1,458	1,234
Donnaconna	–	–	1,225
Baie Shawinigan	–	1,024	1,213
Port Alfred	–	–	1,213
Almaville	–	–	1,174
Laurentides	934	1,128	1,150
Como	628	898	1,146
Deschaillons	1,213	1,161	1,142
St. Rémi	1,080	1,021	1,135
Greenfield Park	–	–	1,112
Macamic	–	–	1,104
St. Eustache	1,079	996	1,098
Cowansville	699	881	1,094
La Providence	819	894	1,078
Chambly Basin	849	900	1,068
St. George East	544	1,410	1,058
Rawdon	–	–	1,042
Montreal South	–	790	1,030
Abord-à-Plouffe	–	–	1,011

Towns and Villages.	1901.	1911.	1921.
Ontario.			
Dundas	3,173	4,299	4,978
Renfrew	3,153	3,846	4,906
Thorold	1,979	2,273	4,825
Brampton	2,748	3,412	4,527
Port Hope	4,188	5,092	4,456
Cobalt	–	5,638	4,449
Sandwich	1,450	2,302	4,415
Paris	3,229	4,098	4,368
Sturgeon Falls	1,418	2,199	4,125
Goderich	4,158	4,522	4,107
Arnprior	4,152	4,405	4,077
Penetanguishene	2,422	3,568	4,037
Wallaceburg	2,763	3,438	4,006
Simcoe	2,627	3,227	3,953
St. Marys	3,384	3,388	3,847
Timmins	–	–	3,843
Carleton Place	4,059	3,621	3,841
Perth	3,588	3,588	3,790
Mimico	437	1,373	3,751
Haileybury	–	3,874	3,743
Leamington	2,451	2,652	3,675
Newmarket	2,125	2,996	3,626
Gananoque	3,526	3,804	3,604
Parry Sound	2,884	3,429	3,546
Rockland	1,998	3,397	3,496
Port Colborne	1,253	1,624	3,415
Picton	3,698	3,564	3,356
Oakville	1,643	2,372	3,298
Bowmanville	2,731	2,814	3,233
Dunnville	2,105	2,861	3,224
Weston	1,083	1,875	3,166
Petrolia	4,135	3,518	3,148
Fort Frances	697	1,611	3,109
Napanee	3,143	2,807	3,038
Tilsonburg	2,241	2,758	2,974
Campbellford	2,485	3,051	2,890
Whitby	2,110	2,248	2,800
Hanover	1,392	2,342	2,781
Hespeler	2,457	2,368	2,777
Amherstburg	2,222	2,560	2,769
Burlington	1,119	1,831	2,709
Strathroy	2,933	2,823	2,691
New Toronto	209	686	2,669
Cochrane	–	1,715	2,655
Meaford	1,916	2,811	2,650
Prescott	3,019	2,801	2,636
Copper Cliff	2,500	3,082	2,597
Merritton	1,710	1,670	2,544
Listowel	2,693	2,289	2,477
Bracebridge	2,479	2,776	2,451
Almonte	3,023	2,452	2,426
Bridgeburg	1,356	1,770	2,401
Portsmouth	1,827	1,786	2,351
Walkerton	2,971	2,601	2,344
Aurora	1,590	1,901	2,307
New Liskeard	–	2,108	2,268
Huntsville	2,152	2,358	2,246
Alexandria	1,911	2,323	2,195
Aylmer	2,204	2,102	2,194
Orangeville	2,511	2,340	2,187
Wingham	2,392	2,238	2,092
Kincardine	2,077	1,956	2,077
Georgetown	1,313	1,583	2,061
Clinton	2,547	2,254	2,018
Elmira	1,060	1,782	2,016
Grimsby	1,001	1,669	2,004
Milton	1,372	1,654	1,873
Bridgetown	2,405	1,954	1,855
Deseronto	3,527	2,013	1,847
Blind River	2,656	2,558	1,843
Seaforth	2,245	1,983	1,829
Mitchell	1,945	1,766	1,800
Fergus	1,396	1,534	1,796
Kingsville	1,537	1,427	1,783
Wiarton	2,443	2,266	1,726

36.—Population of Towns and Villages having between 1,000 and 5,000 Inhabitants in 1921, as compared with 1991 and 1911—concluded.

Towns and Villages.	1901.	1911.	1921.
Ontario—concluded.			
Acton	1,484	1,720	1,722
Mount Forest	2,019	1,839	1,718
Chesley	1,743	1,734	1,708
Tilbury	1,012	1,368	1,673
Thessalon	1,205	1,945	1,651
Essex	1,391	1,353	1,588
Blenheim	1,653	1,387	1,565
Fort Erie	890	1,146	1,546
Southampton	1,636	1,685	1,537
Humberstone	–	–	1,524
Palmerston	1,850	1,665	1,523
Vankleek Hill	1,674	1,577	1,499
Durham	1,422	1,581	1,494
Port Dalhousie	1,125	1,152	1,492
Gravenhurst	2,146	1,624	1,478
Victoria Harbour	989	1,616	1,463
Port Dover	1,177	1,138	1,462
Mattawa	1,400	1,524	1,462
Uxbridge	–	–	1,456
Morrisburg	1,693	1,696	1,444
Rainy River	–	1,578	1,444
Exeter	1,792	1,555	1,442
Forest	1,553	1,445	1,422
Brighton	1,378	1,320	1,411
Alliston	1,256	1,279	1,376
Niagara	1,258	1,318	1,357
New Hamburg	1,208	1,484	1,351
Dresden	1,613	1,551	1,339
Tweed	1,168	1,368	1,339
Keewatin	1,156	1,242	1,327
L'Orignal	1,026	1,347	1,298
Port Elgin	1,313	1,235	1,291
Caprcol	–	–	1,287
Havelock	984	1,436	1,268
Harriston	1,637	1,491	1,263
Point Edward	780	874	1,258
Beamsville	832	1,096	1,256
Cardinal	1,378	1,111	1,241
Caledonia	801	952	1,223
Kemptville	1,523	1,192	1,204
Lakefield	1,244	1,397	1,189
Iroquois Falls	–	–	1,178
Norwich	1,269	1,112	1,176
Hagersville	1,020	1,106	1,169
Riverside	–	–	1,155
Parkhill	1,430	1,289	1,152
Port Perry	1,465	1,148	1,143
Chippawa	460	707	1,137
Elora	1,187	1,197	1,136
Sioux Lookout	–	550	1,127
Winchester	1,101	1,143	1,126
Port Credit	–	–	1,123
Waterford	1,122	1,083	1,123
Arthur	1,285	1,102	1,104
Bobcaygeon	914	1,000	1,095
Port McNicoll	–	–	1,074
Shelburne	1,188	1,113	1,072
Watford	1,279	1,092	1,059
Madoc	1,157	1,058	1,058
Richmond Hill	629	652	1,055
Stouffville	1,223	1,034	1,053
Chelmsford	493	550	1,045
Fenelon Falls	1,132	1,053	1,031
Dryden	140	715	1,019
Eganville	1,107	1,189	1,015
Markham	967	909	1,012
Tavistock	403	981	1,011
Manitoba.			
Transcona	–	–	4,185
Dauphin	1,135	2,815	3,885
Selkirk	2,188	2,977	3,726
Neepawa	1,418	1,864	1,887
The Pas	–	–	1,858

Towns and Villages.	1901.	1911.	1921.
Manitoba—concluded.			
Souris	839	1,854	1,710
Carman	1,439	1,271	1,591
Minnedosa	1,052	1,483	1,505
Virden	901	1,550	1,361
Morden	1,522	1,130	1,268
Stonewall	589	1,005	1,112
Tuxedo	–	–	1,062
Saskatchewan.			
North Battleford (city)	–	2,105	4,108
Swift Current (city)	121	1,852	3,518
Weyburn (city)	113	2,210	3,193
Melville	–	1,816	2,808
Estevan	141	1,981	2,290
Kamsack	–	473	2,002
Humboldt	–	859	1,822
Melfort	–	599	1,746
Biggar	–	315	1,535
Indian Head	768	1,285	1,439
Canora	–	435	1,230
Battleford	609	1,335	1,229
Shaunavon	–	–	1,146
Gravelbourg	–	–	1,106
Watrous	–	781	1,101
Moosomin	868	1,143	1,099
Rosthern	413	1,172	1,074
Assiniboia	–	–	1,006
Kindersley	–	456	1,003
Maple Creek	382	936	1,002
Alberta.			
Drumheller	–	–	2,499
Red Deer (city)	323	2,118	2,328
Wetaskiwin (city)	550	2,411	2,061
Camrose	–	1,586	1,892
Macleod	796	1,844	1,723
Taber	–	1,400	1,705
Cardston	639	1,207	1,612
Ponoka	151	642	1,594
Coleman	–	1,557	1,590
Blairmore	231	1,137	1,552
Vegreville	–	1,029	1,479
Stettler	–	1,444	1,416
Raymond	–	1,465	1,394
Hanna	–	–	1,364
Vermilion	–	625	1,272
High River	153	1,182	1,198
Edson	–	497	1,138
Redcliff	–	220	1,137
Lacombe	499	1,029	1,133
Magrath	424	995	1,069
Grande Prairie	–	–	1,061
Big Valley	–	–	1,057
Beverly	–	–	1,039
British Columbia.			
Kamloops	–	3,772	4,501
Fernie	–	3,146	4,343
Vernon	802	2,671	3,685
Cumberland	732	1,237	3,176
Trail	1,360	1,460	3,020
Revelstoke	1,600	3,017	2,782
Cranbrook	1,196	3,090	2,725
Kelowna	261	1,663	2,520
Port Coquitlam	–	–	2,148
Rossland	6,156	2,826	2,097
Prince George	–	–	2,053
Ladysmith	746	3,295	1,967
Chilliwack	277	1,657	1,767
Merritt	–	703	1,721
Grand Forks	1,012	1,577	1,469
Duncan	–	–	1,178
Port Alberni	–	–	1,056
Port Moody	–	–	1,030

Section 11.—Literacy.[1]

The results of the census of 1921 with regard to literacy furnish most encouraging evidence of the progressive elimination of illiteracy in Canada. Indeed, the rate of progress is not adequately shown by the comparison made in Table 37 between literacy in 1921 and in the two preceding censuses, since this comparison can be made only for the ages of 5 years and over, and experience has shown that the illiteracy of children in the quinquennial age group between 5 and 9 years of age is practically meaningless.

37.—Literacy among the Population 5 Years of Age and over, by Provinces, 1901, 1911 and 1921.

Provinces.		Population.		Can read and write.	Can read only.	Cannot read nor write.	Per cent 5 years and over.		
		Total.	5 years of age and over.				Can read and write.	Can read only.	Cannot read nor write.
		No.	No.	No.	No.	No.	p.c.	p.c.	p.c.
Prince Edward Island—	1901	103,259	91,860	77,372	4,591	9,897	84·23	5·00	10·77
	1911	93,728	83,792	76,259	1,153	6,380	91·01	1·38	7·61
	1921	88,615	78,969	72,147	1,335	5,487	91·36	1·69	6·95
Nova Scotia—	1901	459,574	407,152	331,007	18,143	58,002	81·30	4·46	14·24
	1911	492,338	433,801	384,605	4,358	44,838	88·66	1·00	10·34
	1921	523,837	463,442	413,952	6,026	43,464	89·32	1·30	9·38
New Brunswick—	1901	331,120	290,732	233,060	10,618	47,054	80·16	3·65	16·19
	1911	351,889	306,896	261,160	2,622	43,114	85·10	·85	14·05
	1921	387,876	338,996	293,454	3,286	42,256	86·57	·97	12·46
Quebec—	1901	1,648,898	1,411,324	1,099,693	61,614	250,017	77·92	4·37	17·71
	1911	2,005,776	1,714,545	1,483,301	12,977	218,267	86·51	·76	12·73
	1921	2,361,199	2,044,181	1,814,953	17,955	211,273	88·79	·88	10·33
Ontario—	1901	2,182,947	1,958,635	1,758,427	28,830	171,378	89·78	1·47	8·75
	1911	2,527,292	2,264,419	2,108,485	7,302	148,632	93·11	·32	6·57
	1921	2,933,662	2,632,085	2,447,588	15,207	169,290	92·99	·58	6·43
Manitoba—	1901	255,211	219,290	184,295	3,083	31,912	84·04	1·41	14·55
	1911	461,394	398,078	340,870	1,231	55,977	85·63	·31	14·06
	1921	610,118	532,306	464,369	4,011	63,926	87·24	·75	12·01
Saskatchewan—	1901	91,279	78,185	49,941	797	27,447	63·88	1·02	35·10
	1911	492,432	421,432	362,768	926	57,738	86·08	·22	13·70
	1921	757,510	644,335	566,038	4,609	73,688	87·85	·71	11·44
Alberta—	1901	73,022	62,554	42,731	707	19,116	68·31	1·13	30·56
	1911	374,295	325,916	283,513	1,198	41,205	86·99	·37	12·64
	1921	588,454	509,896	453,572	3,259	53,065	88·95	·64	10·41
British Columbia—	1901	178,657	163,336	121,782	973	40,581	74·56	·60	24·84
	1911	392,480	356,603	314,183	1,013	41,407	88·11	·28	11·61
	1921	524,582	474,787	427,374	2,552	44,861	90·01	·54	9·45
Yukon—	1901	27,219	26,864	17,374	54	9,436	64·67	·20	35·13
	1911	8,512	8,006	6,843	76	1,087	85·47	·95	13·58
	1921	4,157	3,880	2,732	8	1,140	70·41	·21	29·38
Northwest Territories—	1901	20,129	18,699	3,233	174	15,292	17·29	·93	81·78
	1911	6,507	5,672	857	7	4,808	15·11	·12	84·77
	1921	7,988	7,471	749	6	6,716	10·03	·08	89·89
Canada—	**1901**	**5,371,315**	**4,728,631**	**3,918,915**	**129,584**	**680,132**	**82·88**	**2·74**	**14·38**
	1911	**7,206,643**	**6,319,160**	**5,622,844**	**32,863**	**663,453**	**88·98**	**·52**	**10·50**
	1921	**8,788,483**	**7,730,833**	**6,957,412**	**58,254**	**715,167**	**90·00**	**·75**	**9·25**

[1] For more detailed information see tables on pp. 645-689 of Vol. II of the Census of 1921, published by the Dominion Bureau of Statistics, also special census monograph "Illiteracy and School Attendance in Canada", a study of the Census of 1921.

Literacy of Population over 10 years of age by Age-groups and Birthplaces.—The proportion of the population 10 years of age and over totally illiterate —that is, unable to read and write in any language—was 5·10 p.c. in 1921, as shown in Table 38. This population included Indians, exclusive of whom the percentage was 4·49. If we include Indians the percentage of illiteracy among persons 10 to 14 years was 2·0; among persons 15 to 20 years it was 2·7; among those 21 to 34 years it was 3·9; among those 35 to 64 years it was 6·5; and for those 65 years and over it was 13·1. Further, 55,112 or about one-sixth of all illiterates of specified ages were 65 years and over, while two-thirds were 35 years and over, although the population over 35 years formed only about 40 p.c. of the population of stated ages. The important point, however, is that illiteracy is reduced by about one-third in the case of each successive younger group below 65.

The above rate of progress shown in the case of the younger groups ought to mean that the practical extinction of illiteracy in Canada is in sight. How far the situation is in hand may be seen from the fact that the percentage of illiterates first quoted (5·10) does not by any means represent the general level of the Canadian population. The high percentage of illiteracy—and by "high" is meant anything above the average 5·10—is confined to certain areas containing only 30 p.c. of the Canadian population. Fifty p.c. of the illiterate persons in Canada reside in areas containing only 18 p.c. of the population, while 11 p.c. of the illiterates are residents of areas containing only 1 p.c. of the population.

38.—Literacy among the Population 10 years of Age and over, classified as Canadian-born, British-born or Foreign-born, by Age-Groups, 1921.

Nativity and age-groups.	Total.	Can read and write.		Can read only.		Cannot read nor write.	
	No.	No.	p.c.	No.	p.c.	No.	p.c.
Canadian-born	**4,799,370**	**4,540,488**	**94·60**	**28,674**	**·60**	**230,208**	**4·80**
10–14 years	800,725	783,010	97·79	795	·10	16,920	2·11
15–20 years	759,114	735,448	96·88	2,127	·28	21,539	2·84
21 and over	3,239,531	3,022,030	93·29	25,752	·79	191,749	5·92
21–34 years	1,284,216	1,238,560	96·45	5,166	·40	40,490	3·15
35–64 years	1,623,468	1,509,131	92·96	13,072	·80	101,265	6·24
65 and over	311,932	259,423	83·16	7,477	2·40	45,032	14·44
Age not stated	19,915	14,916	74·90	37	·18	4,962	24·92
British-born[1]	**1,032,453**	**1,021,423**	**98·93**	**3,222**	**·31**	**7,808**	**·76**
10–14 years	53,634	53,475	99·70	20	·04	139	·26
15–20 years	95,438	94,988	99·53	162	·17	288	·30
21 and over	883,381	872,960	98·82	3,040	·34	7,381	·84
21–34 years	314,792	312,900	99·40	674	·21	1,218	·39
35–64 years	494,372	489,355	98·98	1,375	·28	3,642	·74
65 and over	73,750	70,273	95·29	989	1·34	2,488	3·37
Age not stated	467	432	92·50	2	·43	33	7·07
Foreign-born	**859,249**	**736,793**	**86·66**	**10,453**	**1·23**	**103,003**	**12·11**
10–14 years	58,790	57,438	97·70	72	·12	1,280	2·18
15–20 years	93,825	88,633	94·47	491	·52	4,701	5·01
21 and over	697,634	590,722	84·67	9,890	1·42	97,022	13·91
21–34 years	305,049	268,109	87·89	3,779	1·24	33,161	10·87
35–64 years	358,265	296,809	82·85	5,367	1·50	56,089	15·65
65 and over	33,425	25,094	75·08	739	2·21	7,592	22·71
Age not stated	895	710	79·33	5	·56	180	20·11
Total	**6,682,072**	**6,298,704**	**94·26**	**42,349**	**·64**	**341,019**	**5·10**
10–14 years	913,149	893,923	97·88	887	·10	18,339	2·01
15–20 years	948,379	919,069	96·90	2,780	·29	26,528	2·70
21 and over	4,820,546	4,485,712	93·05	38,682	·80	296,152	6·14
21–34 years	1,904,057	1,819,569	95·56	9,619	·50	74,869	3·93
35–64 years	2,476,105	2,295,295	92·60	19,814	·80	160,996	6·52
65 and over	419,107	354,790	84·65	9,205	2·19	55,112	13·14
Age not stated	21,277	16,058	75·47	44	·02	5,175	24·22

[1] This term includes those born in the British Empire outside of Canada.

Literacy by Sexes and Provinces.—In a table on p. 129 of the 1925 Year Book, dealing with literacy by sexes in the various provinces, it is shown that illiteracy is greater among males, 5·73 p.c. of the male population 10 years and over being illiterate, as compared with 4·43 p.c. among the female population. In the Prairie Provinces, however, illiteracy among females is higher than among males—a fact due probably to the large percentage of persons from the European continent among the population.

Literacy by Nativity of Population.—The literacy by nativity of the population 10 years of age and over in 1921 is shown by provinces for Canadian-born, British-born and foreign-born in a table on p. 131 of the 1924 Year Book, these figures showing that the foreign-born are much the most illiterate group of the population, with illiteracy of 12·11 p.c., as compared with 4·80 p.c. for Canadian-born and 0·76 p.c. for British-born. In considering this table it should be remembered that the term "Canadian-born" includes the Indian population.

Perhaps the most interesting and significant feature of the achievement of the schools of Canada is illustrated by the difference between the proportion of illiterates among foreign-born immigrants and among the children of these immigrants. Here it is necessary to differentiate between such foreign-born immigrants as Americans and certain Europeans, who enjoyed excellent educational advantages in their own country, and the immigrants who belong to illiterate countries. Of the latter, a group of 367,838 foreign-born persons over the age of 10, belonging to seventeen of the less literate races, showed an illiteracy of 24·8 p.c. The children of these immigrants who were born in the Empire, *i.e.*, practically all in Canada, to the number of 133,010, showed an illiteracy of only 5·1 p.c., or exactly the same percentage as shown by the general Canadian population.

The element of the Canadian-born population showing the lowest percentage of illiteracy is that with one parent Canadian, the other British. This element existed in 1921 to the number of 375,068 persons over the age of 10 years, and showed an illiteracy of 1·08 p.c., as compared with 1·25 p.c. in the case of the next lowest, the persons both of whose parents were British-born.

Literacy of Adult Population.—There were in the nine provinces in 1921, exclusive of Indians, 4,760,815 persons 21 years of age and over, of whom 261,579 or 5·49 p.c. were unable to "read and write". The highest percentage of illiteracy (8·57 p.c.) for this class of the population was in New Brunswick, followed by Quebec with 7·97 p.c. and Manitoba with 7·70 p.c. illiterate. Table **40** on p. 141 of the 1927-28 Year Book summarizes by provinces the number and percentage of illiterates in the population 21 years of age and over in 1921. In comparing these figures with those for the voting population, allowance should be made for the inclusion here of a considerable number of illiterate alien nationals.

Literacy among Urban Populations.—In a table on page 133 of the 1924 Year Book, statistics were given of the literacy of the population 10 years of age and over in cities and towns of 10,000 and over, as in 1921. Here it was noted that the largest cities of Canada, which receive a large number of immigrants, make by no means the best showing in regard to literacy. The lowest percentages of illiteracy in Canada are found in Westmount and Outremont—0·34 p.c. and 0·57 p.c. respectively. These, however, can hardly be considered as independent com-

munities, but rather as suburbs of Montreal. Apart from these, Stratford with 0·77 p.c., Galt with 0·80 p.c., and St. Thomas with 0·84 p.c. of illiteracy, stand highest among the self-contained urban communities of the country.

Section 12.—School Attendance.[1]

The census statistics of school attendance for the population between the ages of 5 and 19 years of age are presented for 1901, 1911 and 1921 in Tables **39** and **40** for Canada as a whole. In comparing the statistics of school attendance for the census of 1921 with those of 1911 and 1901, it must be taken into account that in 1921 the record of school attendance covered the nine months ended May 31, 1921, while in 1911 the period of school attendance had reference to the calendar year 1910; in the 1901 census it had reference to the census year ended March 31, 1901; moreover, the records for 1901 were compiled and published only for the age-groups 5 to 9 and 10 to 19 years.

In the 1921 census, the population 5 to 19 years of age numbered 2,763,728, or 31·5 p.c. of the total population of stated ages (8,767,206), as compared with 2,163,937 or 30·2 p.c. in a population of 7,169,960 of stated ages in 1911 and 1,748,741 or 32·8 p.c. in a population of 5,322,238 of stated ages in 1901.

In 1901, 52·13 p.c. of the population 5 to 19 years of age (1,748,741) attended school for some period; in 1911 there was a slight improvement, the percentage rising to 52·88 p.c. of the population of this age (2,163,937), while in 1921 the proportion of the population (2,763,728) in this age-group attending school rose to 61·32 p.c., being a gain of 8·44 p.c. as compared with the previous census. It is also worthy of note that the percentage of school attendance of males 5 to 19, which showed a falling off from 1901 to 1911, increased from 52·15 p.c. in 1911 to 60·79 p.c. of the total in 1921. The proportion of the female population 5 to 19 reported attending school for any period rose from 51·99 p.c. of the total female population in this age-group in 1901 to 53·63 p.c. in 1911 and to 61·86 p.c. in 1921.

39. School Attendance of the Total Population[2] 5 to 19 Years of Age inclusive, for all Canada, in 1901, 1911 and 1921.

Schedule.	Both sexes.			Males.			Females.		
	1901.	1911.	1921.	1901.	1911.	1921.	1901.	1911.	1921.
5-9 years—Total	**615,899**	**783,252**	**1,048,761**	**311,134**	**395,045**	**528,700**	**304,765**	**388,207**	**520,061**
At school	367,903	459,682	686,616	187,045	232,581	345,496	180,858	227,101	341,120
Not at school	247,996	323,570	362,145	124,089	162,464	183,204	123,907	161,106	178,941
10-19 years—Total	**1,132,842**	**1,380,685**	**1,711,967**	**575,949**	**706,155**	**861,579**	**556,893**	**674,530**	**859,388**
At school	543,758	684,599	1,008,178	276,601	341,745	501,520	267,157	342,854	506,658
Not at school	589,084	696,086	706,789	299,348	364,410	363,059	289,736	331,676	343,730
5-19 years—Total	**1,748,741**	**2,163,937**	**2,763,728**	**887,083**	**1,101,200**	**1,393,279**	**861,658**	**1,062,737**	**1,379,449**
At school	911,661	1,144,281	1,694,794	463,646	574,326	847,016	448,015	569,955	847,778
1-3 months	51,986	42,514	72,544	27,946	21,904	36,596	24,040	20,610	35,948
4-6 "	114,861	131,343	133,419	60,333	68,468	68,078	54,528	62,875	65,341
7-9 "	744,814	970,424	1,488,831	375,367	483,954	742,342	369,447	486,470	746,489
Not at school	837,080	1,019,656	1,068,934	423,437	526,874	546,263	413,643	492,782	522,671

[1] For more detailed information, see pp. 691-743 of Vol. II of the Census of 1921, published by the Dominion Bureau of Statistics. [2]Including population 5-19 years of age of Yukon and Northwest Territories.

40.—Percentage of School Attendance of Total Population[1] 5 to 19 years of age inclusive, for all Canada, in 1901, 1911 and 1921.

Schedule.	Both Sexes.				Males.				Females.			
	1901.	1911.	1921.	Increase 1911-1921.	1901.	1911.	1921.	Increase 1911-1921.	1901.	1911.	1921.	Increase 1911-1921.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
5-9 years—												
At school	59·73	58·69	65·47	+6·78	60·12	58·97	65·35	+6·48	59·34	58·50	65·59	+7·09
Not at school	40·27	41·31	34·53	−6·78	39·88	41·13	34·65	−6·48	40·66	41·50	34·41	−7·09
10-19 years—												
At school	48·00	49·58	58·79	+9·21	48·03	48·40	58·01	+9·61	47·97	50·83	59·58	+8·75
Not at school	52·00	50·42	41·21	−9·21	51·97	51·60	41·99	−9·61	52·03	49·17	40·42	−8·75
5-19 years—												
At school	52·13	52·88	61·32	+8·44	52·27	52·15	60·79	+8·64	51·99	53·63	61·86	+8·23
1-3 months	2·97	1·97	2·62	+0·65	3·15	1·99	2·62	+0·63	2·79	1·94	2·62	+0·68
4-6 "	6·57	6·07	4·83	−1·24	6·80	6·22	4·89	−1·33	6·33	5·92	4·77	−1·15
7-9 "	42·59	44·84	53·87	+9·03	42·32	43·94	53·28	+9·34	42·87	45·77	54·47	+8·70
Not at school	47·87	47·12	38·68	−8·44	47·73	47·85	39·21	−8·64	48·01	46·37	38·14	−8·23

[1] Including population 5-19 years of age of Yukon and Northwest Territories.

School Attendance at the Generally Compulsory Ages.—In Table 41 the records of school attendance are presented for 1911 and 1921 for the total population 7 to 14 years (Indians included). The table shows that there were 1,526,948 persons, including Indians, in the nine provinces of the Dominion in 1921 between the ages of 7 and 14, of whom 1,352,711 or 88·59 p.c. attended school in the school year, as compared with 922,429 or 79·78 p.c. out of a total population of 1,156,270 in this age-period who were reported as having attended school in 1911.

For Canada (exclusive of Yukon and Northwest Territories), out of every 1,000 children 7 to 14 years of age, 886 attended school for some period in 1921, as against 798 in 1911. Perhaps the improvement in school attendance in the decade will be more evident if it be noted that the number of children (7-14) not attending school was reduced from 202 per 1,000 in 1911 to 114 in 1921. The betterment in school attendance shown for Canada as a whole is reflected in each of the provinces. In 1911 Prince Edward Island held the premier position with 84·60 p.c. of the population 7-14 at school; in 1921 the first position goes to Ontario with 91·48 p.c. of the population 7-14 at school for some period in the year, followed by British Columbia with 90·02 p.c. The greatest relative improvement in school attendance is shown by the Prairie Provinces and the smallest by the Maritime Provinces, but this is largely due to the fact that in 1911 Prince Edward Island, Nova Scotia and New Brunswick each showed a school attendance of better than 80 p.c., whereas Alberta reported an attendance of less than 63 p.c., Saskatchewan was under 67 p.c. and Manitoba had a school attendance of slightly more than 74 p.c. of the population of compulsory school age.

In comparing the two years it should be noted that the figures in the 1911 census refer to the calendar year 1910, while those in the 1921 census refer to the nine months immediately preceding June 1, 1921. It is particularly necessary to remember this when comparing the number and proportions attending from 7 to 9 months. The difference, however, is not so great as it might seem from the fact that one census referred apparently to twelve months, while the other referred to nine. Out of the twelve months would have to be deducted the vacation periods of about two months, although during these vacations summer schools (which were in existence in 1911 to a greater extent than in 1921) were in operation.

41.—School Attendance of the Population 7 to 14 years of age, by Provinces, 1911 and 1921.

Provinces.		Total.	At school for any period.		Not at school.		Months at school.					
							1-3.		4-6.		7-9.	
		No.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
P. E. Island	1921	15,169	13,357	88·05	1,812	11·95	812	5·35	1,985	13·09	10,560	69·61
	1911	16,616	14,057	84·60	2,559	15·40	563	3·39	2,211	13·31	11,283	67·90
Nova Scotia	1921	92,944	81,139	87·39	11,805	12·61	2,778	2·99	7,550	8·13	70,811	76·27
	1911	84,367	69,903	82·86	14,464	17·14	2,679	3·18	9,974	11·82	57,250	67·86
New Brunswick	1921	71,481	59,518	83·26	11,963	16·74	3,329	4·66	8,753	12·24	47,436	66·36
	1911	62,588	50,100	80·05	12,488	19·95	1,965	3·14	7,928	12·67	40,207	64·24
Quebec	1921	455,919	394,587	86·55	61,332	13·45	7,006	1·54	14,934	3·28	372,647	81·73
	1911	372,551	301,482	80·92	71,069	19·08	3,975	1·07	12,831	3·44	284,676	76·45
Ontario	1921	456,757	417,846	91·48	38,911	8·52	7,172	1·57	17,999	3·94	392,675	85·97
	1911	377,704	318,042	84·20	59,662	15·80	7,415	1·96	29,810	7·89	280,817	74·35
Manitoba	1921	112,607	100,692	89·42	11,915	10·58	3,054	2·71	7,745	6·88	89,893	79·83
	1911	72,552	53,956	74·37	18,596	25·63	2,013	2·77	7,420	10·23	44,523	61·37
Saskatchewan	1921	142,042	124,929	87·95	17,113	12·05	7,466	5·26	23,182	16·32	94,281	66·37
	1911	72,426	48,316	66·71	24,110	33·29	2,538	3·51	14,082	19·44	31,696	43·76
Alberta	1921	102,605	90,943	88·63	11,662	11·37	5,296	5·16	12,520	12·20	73,127	71·27
	1911	54,928	34,527	62·86	20,401	37·14	2,330	4·24	7,616	13·87	24,581	44·75
Brit. Columbia	1921	77,424	69,700	90·02	7,724	9·98	968	1·25	3,207	4·14	65,525	84·63
	1911	42,538	32,046	75·33	10,492	24·67	817	1·92	2,580	6·06	28,649	67·35
Total[1]	1921	1,526,948	1,352,711	88·59	174,237	11·41	37,881	2·48	97,875	6·41	1,216,955	79·70
	1911	1,156,270	922,429	79·78	233,841	20·22	24,295	2·10	94,452	8·17	803,682	69·51

[1] Exclusive of Yukon and Northwest Territories.

Table 44 on p. 145 of the 1927-28 Year Book shows the number and proportion of the population 7 to 14 years in each province, exclusive of Indians, who attended school for any period, and of those who attended for a full term. As stated elsewhere, 89·10 p.c. of the 1,508,846 children 7 to 14 years of age in the nine provinces (Indians excluded) attended school for some period and 80·25 p.c. were at school from 7 to 9 months in the school year.

A table showing the percentage of the population of from 5 to 19 years of age who attended school in 1921, classified by age-periods and by sex, will be found on page 137 of the 1924 Year Book, while the school attendance of children from 7 to 14 years of age is shown for cities of 10,000 and over in a table on page 138 of the same volume.

Section 13.—Mother Tongue and Language Spoken.[1]

Every person of 10 years of age and over in Canada was required at the census of 1921 to answer the three questions:—(a) Can you speak English, (b) Can you speak French, (c) Language other than English and French spoken as mother tongue. "Mother tongue" was defined as the "language of customary speech employed by the person". The ascertained mother tongues of the people of Canada, exclusive of aborigines, as thus defined, are presented by provinces in Table 42, while more detailed statistics of the total English-speaking and French-speaking populations are furnished in Tables 43 to 45.

Of the population 10 years or over in the nine provinces (6,595,040), 4,099,246 or 62·12 p.c. gave English as their mother tongue and 1,757,193 or 26·64 p.c. French, 196,619 or 2·98 p.c. German, while 103,977 or 1·58 p.c. spoke one or other of the four Scandinavian languages (Swedish, Norwegian, Danish and Icelandic)

[1] For detailed information, see pp. 491-593 of Vol. II of the Census of 1921, published by the Dominion Bureau of Statistics.

as their mother tongue. Languages of the Slavic group were spoken as the mother tongue by 187,347 or 2·84 p.c. and Yiddish by 85,149 or 1·29 p.c.

As for the population of 10 years and over in the individual provinces, English was the mother tongue of 88·40 p.c. in Nova Scotia, of 87·16 p.c. in Prince Edward Island, of 84·87 p.c. in Ontario, of 80·02 p.c. in British Columbia, of 70·27 p.c. in New Brunswick, of 69·79 p.c. in Alberta, of 64·48 p.c. in Manitoba, of 61·08 p.c. in Saskatchewan and of 17·09 p.c. in Quebec. French was the mother tongue of 79·29 p.c. of the population 10 years old and over in Quebec, of 28·71 p.c. in New Brunswick, of 12·70 p.c. in Prince Edward Island, of 9·89 p.c. in Nova Scotia, of 7·38 p.c. in Ontario, of 6·52 p.c. in Manitoba, of 5·78 p.c. in Saskatchewan, of 5·73 p.c. in Alberta and of 1·94 p.c. in British Columbia.

2.—Mother Tongue of Persons 10 years of age and over, exclusive of Aborigines, by Provinces, 1921.

Mother Tongues.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada.
English	60,195	355,432	204,524	295,529	1,956,298	285,207	323,069	295,741	323,251	4,099,246
Chinese and Japanese	11	306	178	2,191	5,319	1,307	2,676	3,715	33,535	49,238
Finnish	–	14	20	76	9,077	335	1,207	2,080	2,324	15,133
Germanic group	7	1,351	287	4,261	66,447	37,635	77,556	32,111	5,776	225,431
Dutch	1	249	42	287	1,728	8,868	5,583	2,112	652	19,522
Flemish	–	359	65	1,227	1,586	2,813	1,383	1,167	690	9,290
German	6	743	180	2,747	63,133	25,954	70,590	28,832	4,434	196,619
Hungarian[1]	–	92	4	49	907	323	3,675	424	105	5,579
Latin and Greek group	8,778	40,891	83,833	1,383,421	195,430	30,833	30,622	24,277	14,899	1,812,984
Belgian (Walloon)	–	–	2	22	321	29	20	21	9	424
French	8,770	39,785	83,560	1,370,793	170,197	28,836	27,420	19,982	7,850	1,757,193
Greek	3	93	43	1,269	1,385	165	271	251	513	3,993
Italian	4	884	194	10,010	21,229	1,206	415	2,784	5,989	42,715
Portuguese	–	12	8	11	17	7	–	9	30	94
Rumanian	–	61	8	1,023	1,845	500	2,440	1,118	183	7,178
Spanish	1	56	18	293	436	90	56	112	325	1,387
Magyar	–	10	–	74	163	279	1,508	180	28	2,242
Scandinavian group	8	309	864	1,067	7,334	18,354	36,468	26,784	12,789	103,977
Swedish	1	121	146	484	4,204	5,608	11,875	9,876	6,897	39,212
Norwegian	4	100	194	285	1,987	2,484	19,742	13,275	4,353	42,424
Danish	3	86	524	295	1,084	1,193	2,204	3,270	1,100	9,723
Icelandic	–	2	–	3	95	9,069	2,647	363	439	12,618
Slavic group	3	1,864	368	7,009	29,215	55,939	47,798	36,017	9,134	187,347
Austrian[2]	–	144	17	366	2,096	2,596	2,647	2,146	305	10,317
Bohemian	–	125	5	18	234	557	1,221	872	406	3,438
Bulgarian	–	11	10	51	1,134	28	37	54	29	1,354
Lettish	–	1	–	3	23	133	40	143	31	374
Lithuanian	–	115	7	742	222	65	72	106	58	1,387
Polish	2	634	43	2,221	11,046	13,483	5,473	4,217	937	38,056
Russian	1	513	271	2,936	7,215	4,536	13,196	7,068	5,641	41,377
Serbo-Croatian	–	3	4	19	751	19	445	161	367	1,769
Slovak	–	77	1	30	673	146	761	1,249	681	3,618
Ukrainian[3]	–	241	10	623	5,821	34,376	23,906	20,001	679	85,657
Bukovinian	–	1	–	–	47	61	340	10	4	463
Galician	–	30	9	93	910	1,624	1,466	585	133	4,850
Ruthenian	–	44	1	62	1,503	16,372	10,354	7,275	77	35,688
Ukrainian	–	166	–	468	3,361	16,319	11,746	12,131	465	44,656
Syrian and Arabic	44	595	314	1,714	1,725	176	305	136	140	5,149
Yiddish	13	1,199	636	33,280	32,060	11,677	3,652	1,741	891	85,149
Various	1	24	14	224	1,052	224	394	536	1,096	3,565
Total	**69,060**	**402,087**	**291,042**	**1,728,895**	**2,305,027**	**442,289**	**528,930**	**423,742**	**403,968**	**6,595,040**

[1]Those reporting their mother tongue as "Hungarian" should probably in most cases have stated as "Magyar"—the word in general use to describe the official language of Hungary.

[2]Where "Austrian" was reported as "mother tongue", it has been presumed that one of the Austrian Slavic tongues was intended.

[3]Under this group the enumerator returned the mother tongue as the same as the racial origin. It is however probable that, with the exception of the Bukovinians, all these peoples belong to the Slavic group of tongues. Of the total population of Bukovina, 41 p.c. are Ruthenians, 32 p.c. Rumanians, 22 p.c. Germans and about 5 p.c. Poles.

English-speaking Population.—Throughout Canada as a whole, 5,665,527 persons 10 years old and over, or 84·79 p.c. of the total population of these ages, inclusive of aborigines, could speak English, the language of the majority, in 1921, while 1,016,545 persons of 10 years old and over, or 15·21 p.c., were unable to do so. English was the only language spoken by 58·61 p.c., while 16·03 p.c. spoke English and French, 9·49 p.c. spoke English and a foreign language, and about 0·66 p.c. or 43,970 persons, largely foreign-born Austrians, Belgians and Jews, were reported as being able to speak English and French in addition to their mother tongue. Numbers and percentages of the total population, of the British-born (including Canadian-born) population, and of the foreign-born population of 10 years and over, unable to speak English, are given by racial origins in Table **43.**

43.—Numbers and Percentages of Total Population, of British-born Population[2] and of Foreign-born Population, of 10 years old and over, unable to speak English, by Racial Origins, 1921.

Origins.	Total population, 10 years old and over.			British-born population, 10 years old and over.[2]			Foreign-born population, 10 years old and over.		
	Total.	Unable to speak English.		Total.	Unable to speak English.		Total.	Unable to speak English.	
		No.	p.c.		No.	p.c.		No.	p.c.
British races[1]	3,845,921	4,821	·13	3,653,523	4,712	·13	192,398	109	·0
French	1,771,077	870,163	49·13	1,706,095	857,325	50·25	64,982	12,838	19·7
Austrian	69,653	12,726	18·27	18,750	1,139	6·07	50,903	11,587	22·7
Belgian	15,416	2,637	17·11	2,762	284	10·28	12,654	2,353	18·5
Chinese	37,537	12,081	32·18	1,064	52	4·89	36,473	12,029	32·9
Czech	6,351	408	6·42	1,548	16	1·03	4,803	392	8·1
Danish	15,798	221	1·40	4,402	9	·20	11,396	212	1·8
Dutch	88,381	6,823	7·72	69,495	5,168	7·44	18,886	1,655	8·7
Finnish	15,795	2,339	14·81	2,658	55	2·07	13,137	2,284	17·3
German	221,280	4,220	1·91	142,645	998	·70	78,635	3,222	4·1
Greek	4,201	317	7·55	358	12	3·35	3,843	305	7·9
Hebrew	93,412	5,277	5·65	24,894	161	·65	68,518	5,116	7·4
Hungarian	8,742	916	10·48	2,289	24	1·05	6,453	892	13·8
Icelandic	12,308	727	5·91	5,317	22	·41	6,991	705	10·0
Indian	80,037	36,472	45·57	79,437	36,276	45·67	600	196	32·6
Italian	45,386	8,599	18·95	9,135	865	9·47	36,251	7,734	21·3
Japanese	12,057	4,959	41·13	632	73	11·55	11,425	4,886	42·7
Negro	14,274	24	·17	11,221	13	·12	3,053	11	·3
Norwegian	50,379	685	1·36	7,244	45	·62	43,135	640	1·4
Polish	35,412	4,878	13·77	10,406	517	4·97	25,006	4,361	17·4
Rumanian	8,715	1,190	13·65	1,401	106	7·57	7,314	1,084	14·8
Russian	67,131	11,406	16·99	18,470	2,366	12·81	48,661	9,040	18·6
Swedish	47,041	1,061	2·26	8,764	23	·26	38,277	1,038	2·7
Swiss	9,935	245	2·47	5,330	26	·49	4,605	219	4·8
Syrian	5,573	515	9·24	1,571	94	5·98	4,002	421	10·5
Ukrainian	67,654	17,753	26·24	19,289	1,780	9·23	48,365	15,973	33·0
Unspecified	19,138	488	2·55	16,655	472	2·83	2,483	16	·6
Various	13,468	4,594	34·11	6,468	3,660	56·59	7,000	934	13·3
Total	**6,682,072**	**1,016,545**	**15·21**	**5,831,823**	**916,293**	**15·71**	**850,249**	**100,252**	**11·7**

[1] English, Irish, Scotch, Welsh, etc. [2] Includes Canadian-born.

The percentage of persons 10 years old and over unable to speak English the various provinces, ranging from 0·46 p.c. in P.E.I. to 10·40 p.c. in New Brunswick and 47·27 p.c. in Quebec, is given by racial origins in Table **44.**

44.—Percentage of Population 10 years old and over unable to speak English, by Provinces and Racial Origins, 1921.

Origins.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada[1]
British races[3]	[2]	0·01	0·11	1·36	0·02	0·03	0·07	0·01	0·01	0·13
French	3·43	13·26	35·65	58·84	12·52	12·42	9·39	8·19	1·75	49·13
Austrian	–	7·73	15·09	15·71	15·04	19·08	17·95	21·88	3·29	18·27
Belgian	–	12·04	20·69	37·00	12·01	18·34	12·97	8·55	2·53	17·11
Danish	–	0·44	0·87	1·44	1·25	2·67	1·13	1·32	0·58	1·40
Dutch	–	0·21	0·03	2·15	0·12	30·02	21·99	0·96	0·26	7·72
Finnish	–	–	4·55	25·93	20·37	8·20	6·78	7·54	5·82	14·81
German	–	0·07	0·34	10·03	0·47	6·26	4·27	1·87	0·35	1·91
Hebrew	–	2·17	1·68	6·10	5·26	7·87	3·46	2·69	1·14	5·65
Hungarian	–	5·65	–	5·63	7·79	9·54	12·22	4·69	3·89	10·48
Icelandic	–	–	–	–	0·88	6·77	4·82	2·02	1·27	5·91
Italian	–	13·61	13·71	31·53	17·28	8·18	9·26	12·86	10·49	18·95
Norwegian	–	–	0·25	6·09	1·18	2·17	1·22	1·40	1·09	1·36
Polish	–	12·54	9·09	14·32	13·60	15·87	12·88	12·61	3·54	13·77
Rumanian	–	14·47	–	10·38	13·43	12·50	14·72	15·59	3·38	13·65
Russian	–	16·33	3·28	15·39	16·12	10·90	16·71	9·83	47·66	16·99
Swedish	–	0·28	0·25	3·80	2·61	3·86	2·67	1·76	0·85	2·26
Swiss	–	–	–	11·13	0·73	9·97	3·30	1·73	1·13	2·47
Syrian	–	1·37	4·21	21·36	4·80	3·65	2·83	3·95	1·34	9·24
Ukrainian	–	28·14	–	15·80	18·50	25·30	27·62	30·21	7·32	26·24
Total	**0·46**	**1·54**	**10·40**	**47·27**	**1·90**	**6·98**	**5·73**	**4·60**	**5·86**	**15·21**

[1] Yukon and Northwest Territories included in total. [2] Less than one hundredth of one per cent. [3] English, Irish, Scotch, Welsh, etc.

French-speaking Population.—French, the second official language of the Dominion, was spoken in 1921 by 1,997,074 persons of 10 years old and over, or 29·89 p.c. of the total population of these ages. Of these, 1,070,752 also spoke English as a second language, 4,838 spoke their mother tongue other than English as a second language and 43,970 spoke English as well as their mother tongue and French, while 877,514 spoke French only, being about 13 p.c. of the total population of 10 years old and over. Statistics of the French-speaking population are given by racial origins in Table **45**, from which it appears that in 1921 182,633 persons belonging to the British races, 13,196 Hebrews, 10,163 Belgians and 10,138 Italians were able to speak French.

45.—Numbers of the Population of 10 years old and over able to speak French, by Racial Origins, 1921.

Racial origins.	English and French only.	French only.	Mother tongue and French.	Mother tongue and English and French.	Total able to speak French.
British races	176,870	4,664	11	1,088	182,633
French	878,850	869,872	175	1,383	1,750,280
Armenian	9	1	32	58	100
Austrian	157	13	44	965	1,179
Belgian	3,783	1,123	884	4,373	10,163
Bulgarian	11	3	2	49	65
Chinese	16	–	33	350	399
Czech	18	5	8	119	150
Danish	211	7	–	312	530
Dutch	1,087	18	22	723	1,850
Eskimo	–	–	–	–	–
Finnish	20	–	10	146	176
German	2,604	356	46	2,650	5,656
Greek	85	12	32	654	783
Hebrew	698	13	182	12,303	13,196
Hungarian	23	–	5	132	160
Icelandic	21	–	–	106	127
Indian	747	410	806	4,267	6,230
Italian	961	246	2,010	6,921	10,138
Japanese	1	–	1	69	71
Lithuanian	30	1	18	237	286

45.—Numbers of the Population of 10 years old and over able to speak French, by Racial Origins, 1921—concluded.

Racial origins.	English and French only.	French only.	Mother tongue and French.	Mother tongue and English and French	Total able to speak French.
Negro	405	24	–	10	439
Norwegian	272	27	7	522	828
Polish	210	24	50	1,150	1,434
Rumanian	43	8	19	378	448
Russian	164	15	46	936	1,161
Serbo-Croatian	7	3	–	66	76
Swedish	266	11	10	517	804
Swiss	1,081	136	55	763	2,035
Syrian	123	34	261	1,606	2,024
Ukrainian	36	2	25	758	821
Unspecified	1,793	453	2	13	2,261
Various	150	33	42	346	571
Total	**1,070,752**	**877,514**	**4,838**	**43,970**	**1,997,074**

Section 14.—Occupations of the People.

The occupations of the people of a country are at any given time mainly determined by its natural resources and the stage which has been reached in their development. The outstanding characteristics of Canada are its enormous extent, its immense natural resources and the comparatively slight development of these only the southern portions of the country being as yet at all exploited. The developed areas fall into four economic units with quite distinct physical characteristics:—first, the Maritime Provinces, where lands, forests, mines and fisheries are the chief natural resources; secondly, Ontario and Quebec, with lands, forests, mines and abundant water-power for manufacturing purposes; thirdly, the Prairie Provinces, where the land is the chief natural resource except in Alberta, which contains immense coal deposits; lastly, British Columbia, with fisheries, forests and mines where agriculture plays a comparatively minor part. Though, when the country as a whole is considered, the immense fertile areas of arable land must be considered as its chief natural resource, in different parts of its vast expanse other resources predominate, and give the key to the chief occupations of the people.

In Canada, as in other new countries, the labouring population (using the term in its widest sense) bears a larger proportion to the total than is the case in older civilizations where there exists more realized wealth. In addition to our native-born workers, great numbers of young males and smaller numbers of females, who have nothing to sell but their personal services, immigrate from older countries to Canada to find here a better market for their labour. Thus both the sex distribution and the age distribution of the population of Canada is rendered somewhat abnormal, an unusually large percentage of that population being of working age and of the male sex—that is, of the sex which is most generally gainfully employed.[1]

Information regarding the occupation of gainfully employed persons in Canada was obtained at the census of 1921 under the following heads:—(1) "Chief occupation or trade", defined as being the description which would most accurately indicate the particular kind of work done by which a living was earned; (2) Whether "employer", "employee", or "working on own account", these latter including "persons who are gainfully employed but who are neither employers nor employees", *i.e.*, independent workers who receive neither salary nor wages nor an

1. On the sex distribution of the population, see pp. 95-97; on the age distribution, see pp. 101-102.

subject to direction or control in their work; (3) In the case of employers, the name of the principal product; in the case of employees, where employed; in the case of workers on their own account, the nature of the work.

During the forty years which elapsed between 1881 (when the details regarding occupations were first collected in something like their present form) and 1921, the list of gainful occupations has been greatly lengthened, in consequence of the subdivision of existing occupations and the rise of new occupations as the result of the progress of science and industry. The division of labour in such older occupations as the making of clothes and boots and shoes has combined with the introduction of such newer occupations as the making of automobiles and electrical equipment to render the results of different censuses of occupations quite incomparable. It is therefore an exceedingly difficult thing to classify the gainfully occupied population of different censuses under classes of even the most general character. Nevertheless, there is an increasing demand for just this information, which is needed to throw light upon the changing importance of different occupations and the specialization of functions among our people in the last half century—a very important matter to the student of our economic history. It has therefore been deemed advisable to arrange the gainfully employed population of the later censuses as nearly as possible according to the general grouping used at the census of 1881. While the results must be regarded as of a very approximate character, yet it is felt that they will be useful to students of recent Canadian economic history. It should, however, be remembered in particular that in 1881 the general labourers were incorrectly placed in the building trades. In spite of this discrepancy, it is felt that tables which bring together the available occupational data regarding the gainfully employed population for a period of 40 years should be included in the Year Book. These tables represent the best that can now be done in securing comprehensive statistics on the historical trend of occupational distribution since Confederation. The figures do not include the populations of the Yukon and Northwest Territories.

The Proportion of the Gainfully Employed to the Total Population 10 Years Old and Over, as a Whole and by Industries.—The gainfully employed population of the country has in the past been generally compared with the total population of 10 years old and over, as is done in Table **46** for 1881 and subsequent censuses. Yet in view of the decrease of child labour and the lengthening of school life, it is becoming a question whether the basis of comparison should not be changed to include only the population of higher ages. According to the census of 1921, only 7,729 or 2·1 p.c. of the boys from 10 to 13 years of age and 1,092 or 0·3 p.c. of the girls of the same ages were returned as gainfully employed, the boys mainly in agriculture and the girls in service. Comparatively small as these numbers are, it will be generally felt that they are too large. Gainful employment does not now generally commence before 14 or 15 or even 16 years of age, so that a table which compares the gainfully employed population with the total population of 10 years old or over may be misleading, unless read in connection with Table **49,** which gives the percentages gainfully employed in 1921 by age and sex groups.

Another consideration which must be borne in mind in consulting Table **46** is the relation between the gainfully employed in the two sexes. In 1911, owing to the enormous immigration of the preceding decade, the excess of male over female population reached its maximum, raising the percentage of gainfully employed to total population to a maximum also. In 1921, as a consequence of lessened immigration and of the destruction of male life by the war, and also as a result of

the lengthening of school life, the ratio of the gainfully employed to the total population of 10 years old and over showed a distinct drop. How far this was due to the one set of causes and how far to the other is elucidated to some extent by the figures of Tables **47** and **48**, which analyse the gainfully employed population by sexes.

As regards the changing distribution of the total gainfully employed population by industries, it may be pointed out that, since 1881, agricultural workers have declined from 48·1 p.c. to 32·8 p.c. of the gainfully occupied population, or from nearly one-half to less than one-third; however, they are still by far the largest single group in the population. The manufacturing group is the next largest, increasing from 12·6 p.c. in 1881 to 18·1 p.c. in 1911 and 17·5 p.c. in 1921, the decline in the latter year being probably attributable to the great depression. Noteworthy also are the increases of those engaged in civil and municipal government from 0·6 p.c. to 3·0 p.c., of those in professions from 3·5 p.c. to 7·0 p.c., of those engaged in trade and merchandising from 5·7 p.c. to 11·8 p.c. and of those employed in transportation from 2·9 p.c. to 8·4 p.c. in the period of 40 years covered by the table. Doubtless the decrease in agriculture and the increase in other employments are largely due to the dividing off from agriculture of many employments formerly carried on by the farmer as a necessary part of his operations, *e.g.*, the slaughtering of animals, the transportation of produce to market and the sale of it there, etc. Thus, under present-day conditions of specialization in industry, many of those employed in trade, transportation and manufacture are doing work which formerly was performed by agriculturists and other primary producers for themselves.

46.—Occupations of the Gainfully Employed Population of Canada, Numbers and Percentages, 1881-1921.

Industries.	Numbers in each Industry.				
	1881.	1891.	1901.	1911.	1921.
Agriculture	662,266	735,207	716,860	933,735	1,041,618
Building trades	230,873	185,599	213,307	246,201	284,679
Domestic and personal service	78,184	129,690	153,948	212,138	212,415
Civil and municipal government	7,938	18,267	17,306	76,604	94,541
Fishing and hunting	28,500	30,045	27,225	34,812	29,292
Forestry	8,116	12,812	16,764	42,914	39,815
Manufactures	173,436	237,319	283,897	493,216	555,758
Mining	7,160	16,127	28,650	62,767	51,063
Miscellaneous	13,005	–	490	–	–
Professional	48,461	62,623	83,219	120,616	222,149
Trade and merchandising	78,905	109,632	160,410	283,087	373,747
Transportation	40,741	69,048	80,756	217,544	268,092
Total Gainfully Employed Persons	**1,377,585**	**1,606,369**	**1,782,832**	**2,723,634**	**3,173,169**
Total population 10 years and over	3,162,122	3,611,882	4,063,943	5,514,388	6,671,236

Industries.	Percentages in each Industry.				
	1881.	1891.	1901.	1911.	1921.
Agriculture	48·1	45·8	40·2	34·3	32·8
Building trades	16·8	11·6	12·0	9·0	9·0
Domestic and personal service	5·6	8·0	8·7	7·7	6·7
Civil and municipal government	0·6	1·1	1·0	2·8	3·0
Fishing and hunting	2·1	1·9	1·5	1·3	0·9
Forestry	0·6	0·8	0·9	1·6	1·3
Manufactures	12·6	14·8	16·0	18·1	17·5
Mining	0·5	1·0	1·6	2·3	1·6
Miscellaneous	1·0	–	–	–	–
Professional	3·5	3·9	4·6	4·5	7·0
Trade and merchandising	5·7	6·8	9·0	10·4	11·8
Transportation	2·9	4·3	4·5	8·0	8·4
Total Gainfully Employed Persons	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
P.c. of gainfully employed to total population 10 years and over	43·6	44·5	43·9	49·4	47·6

The Increase of Gainfully Occupied Males.—The total number of gainfully employed males in Canada increased from 1,410,379 in 1891 to 2,683,019 in 1921, or by 90·2 p.c., as compared with a growth of 85·0 p.c. in the total male population and of 88·0 p.c. in the total male population of 10 years old and over. The rather higher rate of increase among gainfully employed males than among all males 10 years old and over is mainly due to the larger percentage of adult male immigrants among those domiciled and working in Canada in the later year.

The percentage of the gainfully employed males to the total male population of 10 years old and over in 1921 was 77·5, as compared with 79·5 in 1911 and 74·2 in 1901 (Table 47). The fact is that the 1901 figure represents about the normal for a population which is receiving only small additions from the immigration of adult males, while the figures for 1911 represent the highly abnormal situation existing at that time, when great numbers of young adult male immigrants were gainfully employed in Canada, thus rendering the younger unemployed males over 10 years of age, who were in attendance at educational institutions of one kind or another, an unusually small fraction of the total. By 1921, however, the excess of able-bodied young males had been largely drained off by emigration or losses in the war, while on the other hand the number of those held back from the labour market for secondary or higher education was considerably increased with the increasing wealth of the nation.

In agriculture, while the number of males employed rose from 723,013 in 1891 to 1,023,706 in 1921, this numerical increase of approximately 300,000 in 30 years was accompanied by a continuous decline from 51·3 p.c. to 38·2 p.c. in their proportion to the total of the occupied male population. Males employed in the building trades, again, while increasing from 185,599 in 1891 to 284,052 in 1921, have not kept pace with the growth of the gainfully occupied population. On the other hand, males employed in manufactures have risen from 174,829 or 12·3 p.c. of the total in 1891 to 449,348 or 16·7 p.c. in 1921, or from one-eighth to one-sixth of the occupied male population. Trade, again, employed 101,714 males in 1891 and 295,836 in 1921, raising its percentage to the total from 7·2 to 11·0. Finally, transportation provided employment for 68,100 males in 1891 and 246,947 in 1921, or for 4·9 p.c. and 9·2 p.c. of the gainfully employed population respectively.

47.—Occupations of the Gainfully Employed Male Population of Canada, Numbers and Percentages, 1891, 1901, 1911 and 1921.

Occupational Groups.	Numbers.				Percentages.			
	1891.	1901.	1911.	1921.	1891.	1901.	1911.	1921.
	No.	No.	No.	No.	p.c.	p.c.	p.c	p.c.
Agriculture	723,013	707,924	917,848	1,023,706	51·3	45·8	38·9	38·2
Building trades	185,599	213,264	245,990	284,052	13·2	13·8	10·4	10·6
Domestic and personal service	38,275	52,473	75,133	77,783	2·8	3·4	3·2	2·9
Civil and municipal government	17,500	16,414	72,531	81,959	1·2	1·1	3·1	3·1
Fishing and hunting	29,841	27,197	34,547	29,241	2·1	1·8	1·5	1·1
Forestry	12,812	16,764	42,901	39,808	0·9	1·1	1·8	1·5
Manufactures	174,829	213,956	392,781	449,348	12·3	13·8	16·6	16·7
Mining	16,124	28,646	62,706	50,860	1·1	1·8	2·6	1·9
Miscellaneous	–	451	–	–	–	–	–	–
Professional	42,572	44,899	62,781	103,479	3·0	2·9	2·7	3·8
Trade and merchandising	101,714	143,248	240,903	295,836	7·2	9·3	10·2	11·0
Transportation	68,100	79,647	210,692	246,947	4·9	5·2	9·0	9·2
Total Males Gainfully Employed	**1,410,379**	**1,544,883**	**2,358,813**	**2,683,019**	**100·0**	**100·0**	**100·0**	**100·0**
Grand total males 10 years and over	1,841,005	2,082,153	2,965,645	3,461,238	–	–	–	–
P.c. of gainfully employed to total	76·6	74·2	79·5	77·5	–	–	–	–

The Increase of Gainfully Employed Females.—Proportionately more remarkable than any of the developments among gainfully employed males between 1891 and 1921, has been the increase from 195,990 to 490,150 in the number of gainfully employed females, as shown in Table 48. This is an increase of 294,160 or 150·1 p.c., while the increase in the total female population of 10 years old and over was only 81·3 p.c. In other words, the gainfully employed females have increased from 11·1 p.c. to 15·2 p.c. of the female population of 10 years old and over.

Still more remarkable than the total increase, however, has been the increase in certain occupations. Whereas in 1891 51·9 p.c. of all gainfully employed females were occupied in domestic and personal service, *i.e.*, in the occupations of the housekeeper, in 1921 only 27·5 p.c. of the gainfully occupied females were in this class, while the remainder had spread themselves out over a wide variety of fields, particularly in the professions and in trade and merchandising. Women in the professions increased their numbers from 20,051 in 1891 to 118,670 in 1921, or nearly six-fold; indeed, in this field, owing to the great number of women teachers and nurses, they outnumbered the males, who were only 103,479 in 1921 as compared with the 118,670 females. In trade and merchandising, the gainfully employed females increased from 7,918 in 1891 to 77,911 in 1921, or nearly ten-fold. In transportation, again, their numbers increased from 948 in 1891 to 21,145 in 1921, or over twenty-fold. Finally, in civil and municipal government, their numbers increased from 767 in 1891 to 12,582 in 1921 or over sixteen-fold. These great increases have brought it about that while the number of women in manufactures increased from 52,251 in 1891 to 106,410 in 1921, their percentage fell from 26·7 p.c. to 21·7 p.c. of the total of gainfully occupied women.

It is true, of course, that the increase in the number of gainfully employed females is to a great extent a matter of specialization of function rather than of the entry by women into fields with which they have had nothing to do in the past. Teaching and nursing, the making of clothes, the keeping of small shops, have always been pre-eminently female employments, and the main difference between the present and the past is the more specialized manner in which such occupations as teaching and nursing are generally carried on in the community.

A remarkable feature of the gainfully employed women is their comparative youth. A very large number of them follow their gainful occupations only for a few years, when they marry and join the ranks of those who can no longer be classed as gainfully occupied. The married women of Canada, numbering 1,631,761 in 1921, together with numerous unmarried women and widows keeping house for their families, are doubtless producers in a very real sense, but they cannot be regarded as "gainfully employed". Yet the keeper of a boarding-house, doing practically the same type of work, is quite properly regarded as "gainfully employed". In view of the inauguration of mothers' pensions—a method of paying widows or otherwise impoverished mothers for looking after their families—it may be conceded that even the economic contribution of the two sexes to the carrying on of the State cannot be regarded wholly in the light of the respective numbers of the two sexes gainfully employed.

48.—Occupations of the Gainfully Employed Female Population of Canada, Numbers and Percentages, 1891, 1901, 1911 and 1921.

Occupational Groups.	Numbers.				Percentages.			
	1891.	1901.	1911.	1921.	1891.	1901.	1911.	1921.
	No.	No.	No.	No.	p.c.	p.c.	p.c.	p.c.
Agriculture	12,194	8,936	15,887	17,912	6·2	3·8	4·4	3·7
Building trades	–	43	211	627	–	–	–	0·1
Domestic and personal service	101,654	111,197	138,879	134,632	51·9	46·7	38·1	27·5
Civil and municipal government	767	892	4,073	12,582	0·4	0·4	1·1	2·6
Fishing and hunting	204	28	265	51	0·1	–	–	–
Forestry	–	–	13	7	–	–	–	–
Manufactures	52,251	60,219	98,561	106,410	26·7	25·3	27·0	21·7
Mining	3	4	61	203	–	–	–	–
Miscellaneous	–	39	–	–	–	–	–	–
Professional	20,051	38,320	57,835	118,670	10·2	16·1	15·9	24·2
Trade and merchandising	7,918	17,162	42,184	77,911	4·0	7·2	11·6	15·9
Transportation	948	1,109	6,852	21.145	0·5	0·5	1·9	4·3
Total Females Gainfully Employed	**195,990**	**237,949**	**364,821**	**490,150**	**100·0**	**100·0**	**100·0**	**100·0**
Grand total females 10 years and over	1,770,877	1,981,790	2,548,743	3,209,998	–	–	–	–
P.c. of gainfully employed to grand total	11·1	12·0	14·3	15·2	–	–	–	–

Occupations of the People, by Age Groups.—Statistics of male and female workers for the main industrial classifications are presented by age groups in Table 49.

Of the total male population 10 years of age and over, 77·5 p.c. was gainfully employed, as compared with 15·3 p.c. of the female population of these same ages; in order to determine the total number of occupied females, however, it would be necessary to include those employed in the maintenance of their homes and the care of their children, who are not ordinarily gainfully occupied persons. In 1921, the married women numbered 1,631,761, or over half the total female population of 10 years and over.

The proportion of male workers rose from 2·1 p.c. of the total male population in the group 10-13 years to 96·7 p.c. in the 35-49 class, declining to 58·4 p.c. in the group 65 years and over. In the female population, the number of gainfully occupied formed 0·3 p.c. of the girls from 10 to 13, the proportion rising steadily to its maximum of 38·8 p.c. among those aged 18 and 19. The number leaving the general labour market upon marriage caused the ratio of gainfully occupied women to decline to 35·1 p.c. in the 20-24 group and to 17·2 p.c. among those aged from 25 to 34 years. The percentage in the next age groups were even smaller, until only 6·2 p.c. of females aged 65 years and over were gainfully employed. This proportion is in striking contrast with the 58·4 p.c. of male workers in the same age group.

A study of this table shows that agriculture employed the greatest proportion of the male workers at all ages; this ratio was, however, higher among the young and the old than among those in the middle groups. In the 10-13 class, 81 p.c. of the occupied boys were on farms, a proportion that showed successive declines in the next age groups, until only 33·1 p.c. of male workers aged 25 to 34 years old were enumerated as agriculturists. This percentage then rose steadily, reaching slightly over 50 p.c. among occupied men of 65 and over. In connection with the younger agricultural workers, it should be pointed out that between 81 p.c. and 85·0 p.c. of those aged 10 to 15 are classified as "farmers' sons", and that the school attendance laws are of necessity generally less rigidly enforced in the rural districts than in the cities.

49.—Occupations of the Male and Female Population 10 Years of Age and Over, classified by Age Groups, according to the Census of 1921.

MALES.

Occupations.		Aggregate.	Age Groups.								
			10-13 years.	14-15 years.	16-17 years.	18-19 years.	20-24 years.	25-34 years.	35-49 years.	50-64 ye ars.	65 and over.
Total population over 10 years in each age group	No.	3,461,238	371,519	171,584	165.252	155,406	350,590	690,096	873,979	468,667	214,145
Population in each age group employed	"	2,683,019	7,729	50,345	112,050	132,771	324,102	663,919	845,278	421,658	125,167
Percentage of occupied to total	p.c.	77·5	2·08	29·3	67·8	85·43	92·44	96·21	96·72	90·0	58·45
Agriculture	No.	1,023,706	6,257	30,261	56,311	58,331	124,751	219,675	292,374	172,777	62,969
Logging, fishing and trapping	"	69,049	184	989	2,852	4,064	10,527	17,747	20,764	9,341	2,581
Mining and quarrying	"	50,860	33	483	1,690	2,255	5,913	14,966	17,861	6,451	1,208
Manufactures	"	414,943	462	7,942	19,961	22,760	52,741	108,449	132,112	57,698	12,818
Construction	"	184,577	41	1,004	3,545	5,314	16,238	44,772	69,369	34,665	9,629
Transportation	"	226,277	62	1,270	5,195	9,613	29,698	68,395	77,341	29,674	5,029
Trade	"	248,548	314	3,922	8,747	10,305	27,764	65,716	86,260	37,104	8,416
Finance	"	46,180	17	452	2,556	3,708	6,872	12,394	13,185	5,698	1,298
Service	"	299,351	155	1,719	5,081	8,747	31,775	83,275	103,047	50,404	15,148
Unspecified industries	"	119,528	204	2,303	6,112	7,674	17,823	28,530	32,965	17,846	6,071

FEMALES.

Total population over 10 years in each age group	No.	3,209,998	365,061	168,080	163,100	153,425	359,991	648,015	736,080	411,601	204,625
Population in each age group employed	"	490,150	1,092	14,042	42,295	59,500	126,226	111,628	81,412	41,217	12,738
Percentage of occupied to total	p.c.	15·3	0·3	8·4	25·9	38·8	35·1	17·2	11·1	10·0	6·2
Agriculture	No.	17,912	4	135	278	242	576	1,162	4,955	7,154	3,406
Logging, fishing and trapping	"	58	2	3	5	8	4	10	11	10	5
Mining and quarrying	"	203	–	8	17	41	71	45	18	3	–
Manufactures	"	105,332	218	5,646	14,224	15,440	26,636	21,576	14,945	5,580	1,067
Construction	"	625	–	11	68	91	228	155	56	13	3
Transportation	"	21,133	7	311	2,408	4,057	8,120	4,805	1,186	216	23
Trade	"	61,891	64	1,637	6,223	8,757	17,707	15,142	9,059	2,736	566
Finance	"	15,121	1	92	1,033	2,417	6,161	4,204	1,049	148	16
Service	"	247,722	778	5,831	16,005	24,980	59,624	59,501	48,446	24,988	7,569
Unspecified industries	"	20,153	18	368	2,034	3,467	7,099	5,028	1,687	369	83

Manufacturing was the second great source of livelihood in all age groupings, except among those over 64, in which it yielded place to the service occupations. At all ages, the proportion of workers in both the former and the latter showed much less variation than in the case of farmers. Construction workers were numerous, and in greatest ratio, in the groups 35-49 and 50-64 years, a fact which may possibly be associated with the high proportion of such workers born in the British Isles, where a long apprenticeship is ordinarily required of building tradesmen. It may also be suggested that construction work is not receiving its due share of those beginning their working life.

The service group of industries, including domestic and personal service, professional service, public administration and some other classes, provided employment for the majority of working women in all age groups. The proportion was 71·2 p.c. of the 10-13 class, declining to 37·8 p.c. among girls of 16 and 17, but rising from 42·0 p.c. in the 18-19 group to 60·6 p.c. among women aged from 50-64 years. The increased ratio in this group among those aged 18 and over, reflects the entry of trained girls into teaching and other professional occupations. Among women of 35 to 49, however, domestic and personal service regained its supremacy.

The manufacturing industries absorbed their highest proportion of girls in the age groups from 14 to 19 years: the constantly increasing use of machinery makes possible the employment of young and comparatively inexperienced persons in semi-skilled factory occupations. Confirmation of the widely accepted statement that factories recruit young employees at the expense of domestic work, lies in the fact that the proportions of girls engaged in manufactures and services are more nearly alike in the age group 14 to 19 than in any other, while from 20 on the percentage in manufactures decreases and that in service increases.

Increase of the Gainfully Employed in the Different Provinces.—In Table 50 are presented figures showing the variations in the number of the gainfully employed in the different provinces in 1881 and subsequent census years. It will be noted that since 1881 there has been a decline in the total number of gainfully employed in Prince Edward Island from 34,094 to 31,106. In all the other provinces, however, there has been an increase. Particularly notable has been the great increase in the number of gainfully employed in Western Canada. As against 45,138 gainfully employed persons of both sexes west of the Lake of the Woods in 1881, there were 919,589 in 1921—a twenty-fold increase.

50.—Number of Males and Females 10 years of age and over engaged in Gainful Occupations, by Provinces, 1881-1921.

Provinces.	1881.[1]	1891.		1901.		1911.		1921.	
	Male and Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
P.E.I.	34,094	31,673	4,030	30,113	3,494	27,956	3,950	27,052	4,054
Nova Scotia	141,526	134,859	22,595	137,566	18,448	148,991	24,370	155,777	28,779
N. Brunswick	105,289	94,261	13,456	98,058	13,807	103,275	16,491	112,944	19,864
Quebec	425,947	397,438	53,066	434,720	77,245	552,140	101,101	646,440	139,151
Ontario	625,591	535,765	94,460	645,322	108,625	836,135	154,878	923,413	195,106
Manitoba	23,162	50,669	4,315	77,418	8,575	155,900	22,206	184,961	31,682
Saskatchewan	3,993	20,759	994	45,145	2,993	195,247	13,275	242,116	24,859
Alberta						149,687	11,923	195,102	21,142
B. Columbia	17,983	44,955	3,074	76,541	4,762	189,482	16,627	194,214	25,513
Canada	**1,377,585**	**1,410,379**	**195,990**	**1,544,883**	**237,949**	**2,358,813**	**364,821**	**2,683,019**	**490,150**

[1]Workers were not classified by sex in 1881.

Occupations of the People of the different Provinces, 1921.—As stated at the commencement of this section, the occupations of the people in any area at any particular time are mainly conditioned by the natural resources of that area and the stage which has been reached in their exploitation. In so extensive a country as Canada, it is inevitable that the natural resources of the various parts should differ very widely, with corresponding differences in the occupations of the gainfully employed. In Canada, the type of gainful occupations followed by women varies comparatively slightly from province to province, the bulk of the gainfully employed women being almost everywhere engaged in service—a type of employment which is not at all closely connected with the natural resources of the area—while lesser numbers are employed in manufactures, more particularly in the textile industries, and in trade. Therefore, to realize the importance of the connection between natural resources and occupations, it is necessary to study the percentages of gainfully employed males, as shown in Table **51.**

Agriculture.—As already stated, agriculture employed in 1921 38·2 p.c. of all the gainfully employed males in Canada, or nearly two out of every five. The variation in the different provinces, however, is very great, the extremes being 71·2 p.c. in Saskatchewan and 17·7 p.c. in British Columbia. In other words, the proportion of males employed in agriculture is over four times as large in Saskatchewan as in British Columbia. Prince Edward Island and Alberta follow Saskatchewan, with 66·8 and 57·7 p.c. respectively of their gainfully employed males engaged in agriculture. No other province has more than 50 p.c., Manitoba, the former stronghold of agriculture, having only 46·3 p.c. of its gainfully occupied males engaged in agricultural work, and New Brunswick 40·7 p.c. Quebec, Ontario and Nova Scotia have in the neighborhood of one-third agriculturists, with 33·6 p.c., 31·4 p.c., and 30·5 p.c. respectively. British Columbia, as already stated, brings up the rear, with little over one-sixth of her gainfully employed males engaged in agricultural pursuits. It may be added that one of British Columbia's problems is the shifting character of her population.

Logging, Fishing and Trapping.—In this rather varied group, Nova Scotia is the leader, with 9·4 p.c. of her gainfully employed population engaged in these pursuits—largely as fishermen. British Columbia, with her immense forest resources, is a close second with 8·9 p.c., and New Brunswick, also a forest province, third with 6·5 p.c. The 4·6 p.c. contributed by Prince Edward Island are mainly fishermen, while Quebec's 2·4 p.c. are largely foresters. The minimum percentages in this group are found in the Prairie Provinces.

Mining and Quarrying.—Nova Scotia, with her coal mines, is proportionately the leader in this group, with 9·8 p.c. of her gainfully employed males. British Columbia and Alberta, both with extensive coal mines, come second and third with 5·7 p.c. and 4·7 p.c. respectively. Ontario is fourth, with only 1·0 p.c. of its gainfully occupied males in this group—a proportion which would doubtless have been larger if the census had not been taken in a year of depression. Each of the other provinces has under 1·0 p.c. of its gainfully employed males in this group, the proportion reaching its minimum in Prince Edward Island, with only 9 males out of a total of 27,000, or 1 to every 3,000, gainfully employed in this group.

Manufactures.—Manufactures in the Dominion have their centre in Ontario, where 21·6 p.c. of all the gainfully occupied males are engaged in manufactures. Quebec and British Columbia follow with 18·6 p.c. and 15·4 p.c. respectively. Also in New Brunswick and Nova Scotia manufactures play an important part in providing employment for the people, with 13·7 and 12·1 p.c. of all gainfully employed males engaged in manufactures. In Manitoba, too, manufactures have assumed considerable importance, providing work for 8·5 p.c. of the gainfully occupied males. Manufactures are of minor consequence in Prince Edward Island, Alberta and Saskatchewan, where they give work to only 4·5, 4·3 and 2·4 p.c. of the gainfully occupied males respectively. It may be added that it is precisely these three provinces which, as noted above, have the largest percentages of agriculturists in their populations.

Construction.—The number of people describing themselves as gainfully employed in the construction industries is naturally greatest in the more urbanized provinces, where construction is a more specialized occupation. The highest percentages in the construction industries are found in British Columbia, Ontario, Quebec and Nova Scotia, with 8·6, 8·1, 7·7 and 7·5 p.c. respectively. New Brunswick and Manitoba had each 5·6 p.c., while Prince Edward Island, Alberta and Saskatchewan brought up the rear with 3·8, 3·6 and 2·8 p.c. respectively. The depression of 1921 doubtless had some effect upon all these figures.

Transportation.—British Columbia, with its great port of Vancouver, and Manitoba, with its great railway centre at Winnipeg, were the only provinces to have more than one-tenth of their gainfully occupied males employed in transportation, with 10·8 p.c. and 10·6 p.c. respectively. New Brunswick, Ontario and Nova Scotia followed, with 9·0, 8·8 and 8·5 p.c. respectively. Quebec and Alberta had each 7·8 p.c. in this group.

Trade.—In this group Manitoba is the leader, with 11·0 p.c. of its gainfully occupied males; this is probably on account of the position which Winnipeg occupies as a distributing centre for the Prairie provinces, and is counterbalanced by the comparatively small percentages in this group in Saskatchewan and Alberta, *viz.*, 6·1 and 7·2 p.c. respectively. Ontario and British Columbia come second in this connection, each with 10·1 p.c., and Quebec follows with an even 10·0 p.c. New Brunswick and Nova Scotia have 7·7 and 7·5 p.c. respectively, and Prince Edward Island is lower even than Saskatchewan, with only 5·5 p.c. of its occupied males employed in trading activities.

Finance.—In this group, formerly considered as a subdivision of the trading group, Manitoba leads with 2·5 p.c. of its occupied males. British Columbia has 2·0 p.c., Ontario 1·9 p.c. and Quebec 1·6 p.c. Alberta and Saskatchewan have 1·7 p.c. and 1·4 of their occupied males respectively in this group, while the Maritimes have the lowest percentages, *viz.*, 1·0 p.c. in Nova Scotia and 0·9 p.c. in New Brunswick and Prince Edward Island.

Service.—The largest proportionate number of gainfully employed males in the service group, including domestic and personal service and the professions, is found in British Columbia, with 16·0 p.c. of all its gainfully occupied males in this

group, as compared with 12·0 p.c. in Ontario, the second province in this comparison; the disproportion is probably due to the employment of male Orientals in domestic service in British Columbia. Following Ontario come Manitoba with 11·4, Quebec with 11·1, and Alberta with 10·6 p.c. respectively. The proportion is lower in Saskatchewan with 8·2 p.c., and in the three Maritime provinces, with 8·5 p.c. in Nova Scotia, 7·9 p.c. in New Brunswick and 6·1 p.c. in Prince Edward Island. But it is obvious from the figures that the service group is spread out over all the provinces much more evenly than most of the others, because of the direct relationship in which those who render service stand to all other human beings, as distinguished from those whose activities are connected with commodities either in their natural or their manufactured state.

51.—Occupations of the Population 10 years of age and over, by Provinces and Sex, Numbers and Percentages, 1921.

A.—NUMBERS.

Occupations.	MALES.								
	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
Agriculture	18,057	47,771	45,982	217,422	289,715	85,636	172,245	112,490	34,38
Logging, fishing and trapping	1,252	14,804	7,305	15,261	10,586	733	859	955	17,29
Mining and quarrying	9	15,350	801	4,363	9,378	339	383	9,148	11,08
Manufactures	1,212	18,909	15,461	120,431	198,897	15,823	5,778	8,492	29,94
Construction	1,015	11,773	6,289	49,542	75,090	10,302	6,890	6,999	16,67
Transportation	1,159	13,353	10,182	50,111	81,358	19,636	14,298	15,250	20,93
Trade	1,492	11,679	8,673	64,932	93,020	20,324	14,757	14,034	19,63
Finance	239	1,559	1,009	10,408	17,587	4,671	3,376	3,372	3,95
Service	1,648	13,359	8,975	71,709	110,902	21,094	19,934	20,734	30,99
Unspecified	969	8,220	8,267	42,261	36,880	6,403	3,596	3,628	9,30
All occupations	**27,052**	**156,777**	**112,944**	**646,440**	**923,413**	**184,961**	**242,116**	**195,102**	**194,22**
Total male population 10 years and over	35,031	205,528	148,959	868,377	1,173,349	240,602	302,423	245,906	241,00

FEMALES.

Agriculture	459	1,475	1,000	3,620	5,389	1,272	2,241	1,712	7
Logging, fishing and trapping	2	14	5	11	10	3	–	6	
Mining and quarrying	–	40	1	48	68	4	1	15	
Manufactures	459	3,325	3,031	40,593	49,812	3,246	978	1,357	2,5
Construction	1	63	16	107	330	43	11	8	
Transportation	61	1,064	825	4,798	9,091	1,834	962	866	1,0
Trade	503	3,783	2,995	12,478	27,455	5,568	2,334	2,525	4,2
Finance	75	490	398	2,909	6,471	1,857	1,045	916	9
Service	2,401	17,600	11,150	68,211	87,646	16,838	16,702	13,017	14,1
Unspecified	93	925	443	6,376	8,834	1,017	585	720	1,1
All occupations	**4,054**	**28,779**	**19,864**	**139,151**	**195,106**	**31,682**	**24,859**	**21,142**	**25,**
Total female population 10 years and over	34,192	198,048	143,084	868,946	1,151,115	211,503	235,462	188,169	179,

51.—Occupations of the Population 10 years of age and over, by Provinces and Sex, Numbers and Percentages, 1921—concluded.

(B)—PERCENTAGES.

MALES.

Occupations.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Agriculture	66·8	30·5	40·7	33·6	31·4	46·3	71·2	57·7	17·7
Logging, fishing and trapping	4·6	9·4	6·5	2·4	1·1	0·4	0·4	0·5	8·9
Mining and quarrying	–	9·8	0·7	0·7	1·0	0·2	0·1	4·7	5·7
Manufactures	4·5	12·1	13·7	18·6	21·6	8·5	2·4	4·3	15·4
Construction	3·8	7·5	5·6	7·7	8·1	5·6	2·8	3·6	8·6
Transportation	4·3	8·5	9·0	7·8	8·8	10·6	5·9	7·8	10·8
Trade	5·5	7·5	7·7	10·0	10·1	11·0	6·1	7·2	10·1
Finance	0·9	1·0	0·9	1·6	1·9	2·5	1·4	1·7	2·0
Service	6·1	8·5	7·9	11·1	12·0	11·4	8·2	10·6	16·0
Unspecified	3·5	5·2	7·3	6·5	4·0	3·5	1·5	1·9	4·8
All occupations	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
Percentage of all occupations to male population 10 yrs. and over	77·2	76·3	75·8	74·4	78·7	76·9	80·1	79·3	80·6

FEMALES.

Agriculture	11·3	5·1	5·0	2·6	2·8	4·0	9·0	8·1	2·9
Logging, fishing and trapping	–	–	–	–	–	–	–	–	–
Mining and quarrying	–	0·1	–	–	–	–	–	0·1	0·1
Manufactures	11·3	11·6	15·3	29·2	25·5	10·3	3·9	6·4	9·9
Construction	–	0·2	0·1	0·1	0·2	0·1	–	–	0·2
Transportation	1·5	3·7	4·2	3·4	4·7	5·8	3·9	4·1	6·4
Trade	12·4	13·2	15·1	9·0	14·1	17·6	9·4	12·0	16·7
Finance	1·9	1·7	2·0	2·1	3·3	5·9	4·2	4·3	3·8
Service	59·3	61·2	56·1	49·0	44·9	53·1	67·2	61·6	55·5
Unspecified	2·3	3·2	2·2	4·6	4·5	3·2	2·4	3·4	4·5
All occupations	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
Percentage of all occupations to female population 10 years and over	11·9	14·5	13·9	16·0	17·0	15·0	10·5	11·2	14·2

The Birthplaces of the Gainfully Occupied Population, 1921.—The birthplaces of the gainfully occupied male and female population of Canada are shown by the chief occupational groups in Table 52, and the gainfully occupied male and female population of each nativity group is classified in Table 53 by percentages in each occupation.

Among a total male population 10 years old and over of 3,461,238, 2,683,019 or 77·5 p.c. were gainfully employed. This percentage, however, was reduced to 73·0 p.c. among the native-born Canadians, while it was as high as 91·7 p.c. among those born in Asia and in Continental Europe. Among those born in the British Isles and in the British possessions, the percentages were 87·9 and 88·3 respectively, while the proportion among the U.S.-born was as low as 81·9 p.c. Evidently, the immigrants furnish to the gainfully employed population a proportion considerably greater than their total number would lead one to expect. This is doubtless due to two causes—first, the comparatively small number of children

between 10 and 15 or 16 years of age among the immigrant population, and secondly, the comparative poverty of the immigrant population, which forces them to send their immigrant children earlier to work.

Among the females, the proportion of the gainfully employed to the total population 10 years old and over is exactly the same among the Canadian-born as among the total population, *viz.*, 15·2 p.c. Among the British-born, however, the proportion of gainfully employed females is very high, being 18·4 p.c. and 20·8 p.c. respectively among those born in the British Isles and in the British possessions. The United States-born population, probably because of its predominantly rural character, has a lesser proportion of its females gainfully employed than the general Canadian population, *viz.*, 13·4 p.c. Those born in Continental Europe and in Asia have, however, much smaller proportions still, 9·6 and 9·5 p.c. respectively; this is probably because of the scarcity of women in these groups and the lower age at marriage.

52.—Occupations of the Male and Female Population 10 years of age and over, by Birthplaces, 1921.

MALES.

Occupations.	Total.	Born in Canada.	Born in British Isles.	Born in British Possessions.	Born in U.S.A.	Born in Europe.	Born in Asia.	Born in other Countries and not given.
Total population 10 years old and over	3,461,238	2,413,694	528,904	20,529	179,098	270,245	46,989	1,779
All occupations	**2,683,019**	**1,763,211**	**464,764**	**18,130**	**146,672**	**245,809**	**43,075**	**1,358**
P.c. gainfully employed to total.	*77·5*	*73·0*	*87·9*	*88·3*	*81·9*	*90·9*	*91·7*	*76·3*
Agriculture	1,023,706	721,124	111,105	1,725	78,180	106,771	4,485	316
Logging, fishing and trapping	69,049	52,593	3,126	595	2,858	6,254	3,602	21
Mining and quarrying	50,860	24,201	10,807	1,593	2,239	10,720	1,257	43
Manufactures	414,943	255,962	94,870	4,521	15,947	35,593	7,839	211
Construction	184,577	155,799	45,676	2,127	6,449	14,216	206	104
Transportation	226,277	140,447	50,875	2,155	11,032	20,017	1,620	131
Trade	248,548	163,798	46,326	1,520	10,780	21,841	4,144	139
Finance	46,180	32,517	10,105	470	2,042	918	98	30
Service	299,351	174,759	70,859	2,544	13,388	19,418	18,085	298
Unspecified industries	119,528	82,011	21,015	880	3,757	10,061	1,739	65

FEMALES.

Total population 10 years old and over	3,209,998	2,377,022	464,087	17,839	161,288	182,248	6,282	1,232
All occupations	**490,150**	**361,172**	**85,258**	**3,713**	**21,663**	**17,476**	**600**	**268**
P.c. gainfully employed to total	*15·2*	*15·2*	*18·4*	*20·8*	*13·4*	*9·6*	*9·5*	*21·7*
Agriculture	17,912	12,862	1,862	50	1,078	2,021	19	20
Logging, fishing and trapping	58	51	2	1	1	1	2	–
Mining and quarrying	203	162	25	2	9	5	–	–
Manufactures	105,332	77,530	19,786	628	3,192	4,070	88	38
Construction	625	467	115	4	30	9	–	–
Transportation	21,133	15,262	4,434	176	1,032	220	5	4
Trade	61,891	44,961	11,729	432	2,572	2,026	143	28
Finance	15,121	11,695	2,340	108	790	175	7	6
Service	247,722	183,195	41,455	2,167	12,072	8,345	323	162
Unspecified industries	20,153	14,987	3,510	145	887	604	13	7

Table 53 is an interesting study, showing by industries the percentage distribution of the gainfully occupied male and female population by their places of birth. It is suggested that the occupational distribution of each nativity group be compared by the reader with that of the whole gainfully employed population. Thus, taking the Canadian-born males, for example, it is evident that they are somewhat more than proportionately represented among the agriculturists, the loggers and fishermen, and in finance, while less than proportionately represented in manufactures, construction, transportation and service. The British-born are under-represented in agriculture, but over-represented in manufactures, cons-

ruction, transportation and service. The United States-born, on the other hand, re far more largely agriculturists than the general population and are under-repre-ented in almost all other industries. The heterogeneous group including all those orn in Continental Europe is also over-represented in agriculture, in mining and mong retail merchants. Finally, the Asiatics have a very small representation n agriculture and a very large one in service.

Among the females, the occupational distribution is far less varied than among he males. The service group as a whole includes over 50 p.c. of all gainfully mployed females, this proportion varying only from 47·75 p.c. of the females orn in Europe to 58·36 p.c. of those born in the British possessions; of the total n service activities, the Canadian and U.S.-born show a larger proportion in pro-essional service and the British and European women among those in domestic nd personal service. As regards the second largest group of women, those em-loyed in manufactures, it may be noted that the British are over-represented in roportion to the total and the United States women under-represented. There s a comparatively small variation among the nativity groups in the proportion mployed in trade.

3.—Percentage Distribution of the Gainfully Employed Population in Specified Occupations, by Birthplaces, 1921.

MALES.

Occupations.	Total.	Canada.	British Isles.	British Possessions.	U.S.A.	Europe.	Asia.	Other Countries.
griculture	38·16	40·91	23·91	9·51	53·30	43·41	10·41	25·65
ogging, fishing and trapping	2·57	2·98	0·67	3·28	1·95	2·54	8·36	2·50
ining and quarrying	1·90	1·37	2·33	8·79	1·53	4·36	2·92	2·76
anufactures	15·47	14·52	20·41	24·94	10·87	14·47	18·20	14·13
Animal products	1·22	1·25	1·35	1·57	0·72	0·98	1·84	0·52
Iron and steel	3·97	3·30	7·03	11·38	2·94	3·72	0·32	3·81
Textiles	1·45	1·19	1·59	1·03	0·92	3·43	0·99	1·56
Vegetable products	1·33	1·31	1·81	1·24	0·84	1·05	0·81	1·25
Wood and paper	4·43	4·79	3·62	6·20	3·06	2·52	13·12	4·38
onstruction	6·88	6·57	9·83	11·73	4·40	5·78	0·48	8·97
ransportation	8·43	7·97	10·95	11·89	7·52	8·14	3·76	7·66
rade	9·26	9·29	9·97	8·38	7·35	8·88	9·62	8·97
Retail merchants	3·51	3·39	2·79	2·65	2·72	5·85	6·03	4·90
Salesmen and women	2 79	2·92	3·32	2·48	2·13	1·35	2·25	1·88
inance	1·72	1·84	2·17	2·59	1·39	0·37	0·23	1·82
ervice	11·16	9·90	15·25	14·03	9·13	7·96	41·98	20·54
Custom and repair	1·81	1·79	2·07	1·68	1·87	1·60	0·43	1·41
Domestic and personal	2·98	1·98	3·56	3·04	2·30	2·86	40·21	12·41
Professional	3·06	3·14	3·66	4·83	2·87	1·74	0·59	3·86

FEMALES.

griculture	3·65	3·56	2·18	1·35	4·98	11·56	3·17	7·43
ogging, fishing and trapping	0·01	0·02	–	0·03	–	–	0·33	–
ining and quarrying	0·04	0·04	0·03	0·05	0·04	0·03	–	–
anufactures	21·49	21·47	23·21	16·91	14·73	23·29	14·67	14·13
Animal products	1·48	1 ·63	1·13	0·38	0·87	0·84	3·83	–
Iron and steel	0·80	0·80	0·97	0·73	0·71	0·26	–	0·74
Textiles	11·71	11·85	11·53	10·42	7·79	15·23	7·67	8·92
Vegetable products	2·38	2·39	2·39	1·48	1·86	3·00	0·67	–
Wood and paper	2·04	1·99	2·60	1·32	1·32	1·34	1·64	3·36
onstruction	0·13	0·13	0·13	0·10	0·14	0·05	–	–
ransportation	4·35	4·23	5·20	4·74	4·76	1·26	0·83	1·49
rade	12·63	12·45	13·76	11·63	11·87	11·59	23·83	10·41
Retail merchants	1·27	1·23	1·13	1·64	1·19	2·55	9·83	0·74
Salesmen and women	7·24	7·16	8·04	13·54	6·50	6·00	9·00	4·46
nance	3·08	3·24	2·74	2·91	3·65	1·00	1·17	2·23
rvice	50·54	50·72	48·62	58·36	55·73	47·75	53·83	61·34
Custom and repair	0·06	0·05	0·11	0·03	0·05	0·10	0·50	–
Domestic and personal	27·45	24·60	36·26	43·50	30·37	35·58	41·83	41·26
Professional	20·26	23·04	10·20	13·20	22·50	11·15	10·00	18·59
Total[1]	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**

[1]Includes a small "unspecified" group for each sex.

Section 15.—Blind and Deaf-Mutes.

In recent censuses, questions have been inserted to secure particulars concerning the blind and the deaf-mutes in Canada, the instructions to enumerators in the 1921 census being as follows:—

"Blind.—Include as Blind any person who cannot see well enough to read even with the aid of glasses. The test in the case of infants and generally for persons under 14 must be whether they can distinguish forms and objects: the same test should be applied to older persons who are illiterate. Do not include any person who is blind in one eye only."

"Deaf-mutes.—Include as Deaf-mutes (1) any child under 8 years of age who is totally deaf and (2) any older person who has been totally deaf from childhood. In general make a record only of persons who cannot hear nor talk."

The results for the 1921 census, showing a total of 4,396 blind, 5,334 deaf-mutes and 42 blind-deaf-mutes, are given by provinces and sex in tables on page 149 of the 1927-28 Year Book, together with comparative figures of the censuses of 1891, 1901 and 1911. The wounds received in the Great War doubtless account in large measure for the increase in the number of blind from 3,238 in 1911 to 4,396 in 1921.

Statistics showing ages, conjugal conditions, racial origins, birthplaces, literacy, occupations, etc., of the blind and of the deaf-mutes in 1921 will be found at pp. 747-768 of Volume II of the Census of 1921.

Section 16.—Quinquennial Census of the Prairie Provinces.

Under the Census and Statistics Act of 1905 and the Statistics Act of 1918 a census of the population and agriculture of the three Prairie Provinces was to be taken in 1906 and every tenth year thereafter, in addition to the decennial census of the whole Dominion. A census of the Prairie Provinces was, therefore, taken as of date June 1, 1926, and a summary of the results is presented in Tables **54** and **55**.

The detailed results of this census have been compiled and published separately for Manitoba, Saskatchewan and Alberta; copies of these reports are obtainable from the Dominion Statistician.

The total population of the Prairie Provinces at the date of the census was 2,067,378 as compared with 1,956,082 in 1921, being an increase of 111,296 or 5·6 p.c. The rural population increased during the quinquennial period from 1,252,604 to 1,313,681 and the urban population from 703,478 to 753,697. In considering the results of the census, it should be remembered that during the greater part of the quinquennial period, agriculture, the basic industry of the Prairie Provinces, was in a very depressed condition from which it has fortunately recovered.

54.—Summary of the Population of the Prairie Provinces, as shown by the Quinquennial Census of 1926, with comparative figures for 1921, 1916, 1911 and 1906.

Provinces.	Population in Census Years.					Increase 1926 over 1921.
	1926.	1921.	1916.	1911.	1906.	
Prairie Provinces—						
Manitoba	639,056	610,118	553,860	461,394	365,688	+ 28,938
Saskatchewan	820,738	757,510	647,835	492,432	257,763	+ 63,228
Alberta	607,584	588,454	496,442	374,295	185,195	+ 19,130
Total	**2,067,378**	**1,956,082**	**1,698,137**	**1,328,121**	**808,646**	**+ 111,296**
Total Rural	1,313,681	1,252,604	1,094,820	861,228	562,614	+ 61,077
Total Urban	753,697	703,478	603,317	466,893	246,032	+ 50,219

5.—Population of the Prairie Provinces, as shown by the Quinquennial Census of 1926, by Provinces, Electoral Districts and Cities, with comparative figures for 1921, 1916, 1911 and 1906.

NOTE.—Plus (+) indicates increase. Minus (−) indicates decrease.

Electoral districts and cities.	Population in Census Years.					Increase 1926 over 1921.	
	1926.	1921.	1916.	1911.	1906.		
Manitoba	**639,656**	**610,118**	**553,860**	**461,394**	**365,688**	+	**28,938**
Rural	360,861	348,502	315,117	263,125	225,556	+	12,359
Urban	278,195	261,616	238,743	198,269	140,132	+	16,579
Brandon	39,647	38,500	39,440	37,794	32,189	+	1,147
Dauphin	37,220	38,607	30,811	25,023	20,443	−	1,387
Lisgar	31,101	30,604	28,523	26,279	27,554	+	497
Macdonald	31,726	31,877	28,068	27,366	25,504	−	151
Marquette	37,150	34,482	32,056	28,243	24,489	+	2,668
Neepawa	28,105	29,941	28,335	25,461	24,298	−	1,836
Nelson	21,860	20,868	17,223	12,227	5,359	+	992
Portage la Prairie	33,866	35,461	30,928	24,649	19,516	−	1,595
Provencher	31,617	29,439	27,178	24,822	22,275	+	2,178
Selkirk	42,663	41,265	37,510	27,398	20,632	+	1,398
Souris	25,576	24,439	26,226	25,212	25,596	+	1,137
Springfield	35,754	30,836	28,717	20,492	15,048	+	4,918
St. Boniface	38,987	35,429	30,139	20,411	10,590	+	3,558
Winnipeg North	57,042	52,473	47,590	40,809		+	4,569
Winnipeg North Centre	39,646	39,142	35,386	27,206	92,195	+	504
Winnipeg South	41,004	32,943	27,225	22,347		+	8,061
Winnipeg South Centre	66,092	63,812	59,505	45,655		+	2,280
Cities—							
Brandon	16,443	15,397	15,215	13,839	10,408	+	1,046
Portage la Prairie	6,513	6,766	5,879	5,892	5,106	−	253
St. Boniface	14,187	12,821	11,021	7,483	5,119	+	1,366
Winnipeg	191,998	179,087	163,000	136,035	92,195	+	12,911
Saskatchewan	**820,738**	**757,510**	**647,835**	**492,432**	**257,763**	+	**63,228**
Rural	578,206	538,552	471,538	361,037	209,301	+	39,654
Urban	242,532	218,958	176,297	131,395	48,462	+	23,574
Assiniboia	37,854	34,789	36,259	31,975	28,710	+	3,065
Humboldt	41,132	37,128	30,289	25,704	12,189	+	4,004
Kindersley	31,832	28,997	22,669	12,480	1,111	+	2,835
Last Mountain	35,608	34,054	28,165	23,358	11,024	+	1,554
Long Lake	33,280	32,308	27,752	22,692	11,915	+	972
Mackenzie	38,179	34,669	26,816	22,075	11,909	+	3,510
Maple Creek	39,465	38,586	35,114	16,294	3,397	+	879
Melfort	38,403	30,716	20,966	15,476	9,501	+	7,687
Melville	38,591	36,842	30,663	27,752	21,604	+	1,749
Moose Jaw	42,496	42,243	38,967	30,273	15,127	+	253
North Battleford	38,769	34,451	27,518	18,451	8,749	+	4,318
Prince Albert	43,871	39,126	32,756	26,185	17,561	+	4,745
Qu'Appelle	34,055	33,003	31,569	29,012	25,978	+	1,052
Regina	44,463	40,625	32,168	35,431	10,983	+	3,838
Rosetown	30,903	29,341	26,235	19,167	8,256	+	1,562
Saskatoon	47,109	40,712	35,149	22,861	11,074	+	6,397
South Battleford	40,816	35,070	29,330	21,785	7,228	+	5,746
Swift Current	39,988	40,305	35,025	18,434	4,022	−	317
Weyburn	40,352	37,431	37,260	32,539	19,593	+	2,921
Willow Bunch	47,380	39,257	33,018	15,596	917	+	8,123
Yorkton	36,192	37,857	30,147	24,892	16,915	−	1,665
Cities—							
Moose Jaw	19,039	19,285	16,934	13,823	6,249	−	246
North Battleford	4,787	4,108	3,145	2,105	824	+	679
Prince Albert	7,873	7,558	6,436	6,254	3,005	+	315
Regina	37,329	34,432	26,127	30,213	6,169	+	2,894
Saskatoon	31,234	25,739	21,048	12,004	3,011	+	5,495
Swift Current	4,175	3,518	3,181	1,852	554	+	657
Weyburn	4,119	3,193	3,050	2,210	966	+	926
Alberta	**607,584**	**588,454**	**496,442**	**374,295**	**185,195**	+	**19,130**
Rural	374,614	365,550	308,165	237,066	127,757	+	9,064
Urban	232,970	222,904	188,277	137,229	57,438	+	10,066
Acadia	33,188	39,974	31,444	16,984	479	−	6,786
Athabasca	41,095	37,214	30,393	16,881	7,671	+	3,881
Battle River	37,215	36,737	30,187	21,263	4,906	+	478
Bow River	33,776	34,323	20,520	18,076	5,520	−	547
Calgary East	40,328	38,076	34,575	30,039	18,251	+	2,252
Calgary West	41,064	40,122	36,608	25,894	5,780	+	942
Camrose	38,564	38,274	33,167	27,447	15,673	+	290
Edmonton East	40,017	36,263	33,997	19,803	15,935	+	3,752

55.—Population of the Prairie Provinces, as shown by the Quinquennial Census of 1926, by Provinces, Electoral Districts and Cities, with comparative figures for 1921, 1916, 1911 and 1906—concluded.

NOTE.—Plus (+) indicates increase. Minus (−) indicates decrease.

Electoral districts and cities.	Population in Census Years.					Increase 1926 over 1921.
	1926.	1921.	1916.	1911.	1906.	
Alberta—concluded.						
Edmonton West	43,494	38,478	33,953	22,802	5,919	+ 4.7
Lethbridge	39,646	38,079	31,740	30,140	14,238	+ 1.5
Macleod	36,872	33,826	33,091	30,131	22,608	+ 3.0
Medicine Hat	28,444	36,395	33,710	23,823	7,056	− 7.9
Peace River	42,784	39,727	25,717	15,844	5,543	+ 3.0
Red Deer	36,678	35,318	29,252	27,277	18,082	+ 1.2
Vegreville	35,470	30,593	27,053	21,337	15,592	+ 4.8
Wetaskiwin	38,949	34,785	31,035	25,554	21,932	+ 4.1
Cities—						
Calgary	65,513	63,305	56,514	43,704	13,573	+ 2.1
Edmonton	65,163	58,821	53,846	31,064	14,088	+ 0.5
Lethbridge	10,893	11,097	9,436	9,035	2,936	−
Medicine Hat	9,536	9,634	9,272	5,608	3,020	−
Red Deer	2,006	2,328	2,203	2,118	1,418	−
Wetaskiwin	1,884	2,061	2,048	2,411	1,652	−

Section 17.—Population of the British Empire.

During the decade 1911-1921 the boundaries of the British Empire were co tracted by the voluntary giving up of Egypt and expanded by the addition of varic territories as a result of the war. The increases of territory were mainly in Afri where the Tanganyika Territory, Southwest Africa, and portions of the Camero and Togoland were added to the Empire, with an aggregate area of 731,000 squ miles and an estimated population of slightly over 5,000,000. In Asia the territor acquired by mandate from the League of Nations include Palestine and Me potamia (Iraq), with 3,606,464 inhabitants on an area of 152,250 square mi In the Pacific, the territories added to the Empire include Western Samoa, the Te tory of New Guinea, the Bismarck archipelago and part of the Solomon islan all of which were formerly German possessions. According to the most relia estimates, the total area of these regions is 90,812 square miles with a populatio 592,157.

Statistics of the area and population of the territories included in the Bri Empire in 1921 were given in a table on pp. 152-154 of the 1927-28 Year Bo together with comparative figures of population for 1911.

Section 18.—Land Area and Population of the World.

Statistics showing the areas and the population of the various continents of the countries of the world at the latest enumerations were presented in a t on pp. 155-156 of the 1927-28 Year Book, these populations and areas being ma taken from official information supplied by the countries concerned. In a num of cases, particularly in Asia and Africa, the figures were rather rough approximati

CHAPTER V.—VITAL STATISTICS.

The collection of vital statistics commenced in Canada, as in England, with the registration of baptisms, marriages and burials by the ecclesiastical authorities. These registers, maintained by the priests from the first settlement of the country, have made it possible for the vital statistics of the French colony to be compiled from the year 1610.[1] In the beginning, only one copy of such records was made, but in 1678 the Sovereign Council of Quebec ordered that in future such records should be made in duplicate, and that one copy, duly authenticated, should be delivered to the civil authorities. This arrangement was continued after the cession of the country to Great Britain, and was extended to the newly-formed Protestant congregations by an Act of 1793, but the registration among these latter remained seriously defective, both in Lower Canada and in the new province of Upper Canada.

In English-speaking Canada, vital statistics were from the commencement incomplete, the pioneer settlers often going out into the wilds far from the authority of government and the ministrations of religion. While a law existed in Upper Canada requiring ministers of religion to deposit duplicates of their registers of baptisms, marriages and deaths with the clerks of the peace for transmission to the Provincial Secretary, this law remained practically a dead letter. Again, the efforts made to secure records of births and deaths at the censuses of 1851 and 1861 produced most unsatisfactory and even ridiculous results, as was pointed out by Dr. J. C. Taché, secretary of the board of registration and statistics, in a memorial published in the report of the Canadian Minister of Agriculture for the year 1865. Nevertheless, in spite of the inherent unsoundness of securing at a point of time in a decennial census a record of births and deaths occurring over a considerable period of time, this method was persisted in down to 1911, when the obviously untrustworthy character of the results obtained led to the discarding of the data obtained at the inquiry.

The Dominion Government instituted in the early 80's a plan for compiling the annual mortuary statistics of cities of 25,000 population and over, by subsidizing local boards of health to supply the information under special regulations. A beginning was made with the five cities of Montreal, Toronto, Hamilton, Halifax and Saint John. By 1891 the list had grown to 25, at a time when in most of the provinces the only birth and death statistics were those of the municipalities. Upon the organization of provincial bureaus of vital statistics, however, this work was abandoned, though a conference of Dominion and provincial officials, held in 1893, passed a resolution calling upon the provincial and Dominion authorities to co-operate in the work of collecting, compiling and publishing the vital statistics of the Dominion. This resolution had no immediate practical results in securing accurate or comparable vital statistics.

Each of the provinces of the Dominion has since Confederation enacted its own legislation on vital statistics and administered such legislation according to

[1] For a summary of the vital statistics of the Roman Catholic population from 1610 to 1883, see the Statistical Year Book of Quebec, 1921, English or French edition, p. 51. For details by years of this movement of population, see Vol. V of the Census of 1871, pp. 160-265, and Vol. IV of the Census of 1881, pp. 134-145.

its own individual methods. While the vital statistics of Ontario were published in considerable detail annually from 1871, the arrangements for the collection of data were unsatisfactory. Only in 1906 was the publication of vital statistics begun in Prince Edward Island (no report for 1912 was ever issued), and in Nova Scotia the publication of vital statistics dates only from 1909. Because of the *lacunæ*, and even more because of the incomparability of information collected, of methods of collection and of standard of enforcement, Canadian vital statistics remained extremely unsatisfactory and impossible to be compiled on a national basis, as was pointed out by the 1912 commission on official statistics, which recommended that "for the Dominion, now engaged in building up its national unity, it is important that uniform data should render possible to statisticians the institution of true interprovincial and international comparisons. By effective co-operation of the provinces with the Dominion, this object would be capable of attainment without sacrificing the liberty of each province to satisfy its own special statistical requirements".

The scheme of co-operation, thus outlined, was brought into effect as a consequence of the establishment of the Dominion Bureau of Statistics under the Statistics Act of 1918, which specifically provided that the Bureau should publish an annual report on vital statistics. A scheme was first drawn up in the Bureau and submitted to the various provinces; then Dominion-provincial conferences on vital statistics were held in June and December, 1918, when comprehensive and final discussions took place.

At the conferences of 1918, it was agreed:—(1) that the model Vital Statistics Act prepared by the Dominion Bureau of Statistics, when accepted by the Legislatures, should form the basis of the vital statistics legislation of the several provinces, thus securing uniformity and comparability; (2) that the provinces should undertake to obtain the returns of births, marriages and deaths on the prescribed forms as approved and adopted at the conference, the Dominion Bureau of Statistics to supply the forms free of charge; (3) that the provinces should forward to the Dominion Bureau of Statistics, at such times as might be agreed upon, either the original returns of births, marriages and deaths, or certified transcriptions of the same; the Bureau of Statistics to undertake the mechanical compilation and tabulation.

Under the scheme outlined above, the vital statistics for all the provinces except Quebec were secured and compiled on a uniform basis for the year 1920, and, with the commencement of 1921, it became possible to issue complete statements for the eight provinces. The first five annual reports have been issued and may be obtained on application to the Dominion Statistician.

Statistics showing births, marriages, deaths and natural increase in the nine provinces of Canada in recent years are given under the various headings in the following tables. The statistics for the eight provinces constituting the registration area of Canada are compiled for the provinces in the Dominion Bureau of Statistics, while the figures for Quebec from 1921 to 1925 are taken from the provincial returns. Quebec has been included in the registration area as from Jan. 1, 1926, from which date her statistics are on a comparable basis with those of the other provinces. The final report for 1926 and a preliminary report for 1927, including the statistics of all the nine provinces, have appeared and may be procured from the Dominion Statistician.

Two important considerations should be borne in mind by the students who use either these tables or the detailed reports for comparative purposes.

First, in spite of the improvements recently effected, registration generally, and the registration of births in particular, is not universally carried out. The great extent of the country and the isolation of many of its inhabitants partly account for this unsatisfactory situation.

Secondly, the great differences in the age and sex distribution of the population in different provinces, as shown by the census of 1921, make comparisons (of crude birth rates, for instance) as among the provinces unfair and misleading. For instance, in British Columbia in 1921 there were only 773 females of ages 15 to 44 to every 1,000 males of these ages, while in Quebec there were 1,017 and in Prince Edward Island 986. Evidently, in view of the great disproportion between the sexes in British Columbia, the crude birth rate per 1,000 of population in that province cannot properly be compared with the crude birth rate in Quebec or Prince Edward Island, and consequently a table has been included showing the legitimate birth rate per 1,000 married women between 15 and 44 years of age. Again, in consequence of different age distributions of population in the different provinces—the Prairie Provinces, for instance, have a very young population because of the healthy young immigrants whom they attract—a comparison of crude death rates of the provinces is misleading. In the Prairie Provinces, taken together, only 126 per 1,000 of the 1911 population and 149 per 1,000 of the 1921 population had passed 45 years of age, while in Quebec 178, in Ontario 233 and in Prince Edward Island 264 per 1,000 of the population were in 1921 over 45 years of age. These latter provinces, having a much larger proportion of persons of advanced ages, will inevitably have a higher crude death rate per 1,000 of population than the Prairie Provinces. A table showing the death rates as adjusted on the basis of the English "standard million" of 1901 has therefore been included (Table 21).

The natural increase of the population of Canada is first dealt with, followed by detailed tables of births, marriages and deaths in the order named.

Section 1.—Natural Increase.

Summary statistics of the births, marriages, deaths and natural increase per 1,000 of population are given for the years 1922 to 1927 by provinces in Table 1. The figures for 1927 are subject to revision.

The province of Quebec has one of the highest rates of natural increase per 1,000 of population in any civilized country, 23·4 in 1921, 21·8 in 1922, 18·6 in 1923, 22·0 in 1924, 20·9 in 1925, 17·6 in 1926 and 18·0 in 1927. This brings the average for Canada (exclusive of the territories) up to 17·8 per 1,000 in 1921, 16·5 in 1922, 14·7 in 1923, 15·8 in 1924, 15·2 in 1925, 13·3 in 1926, and 13·5 in 1927.

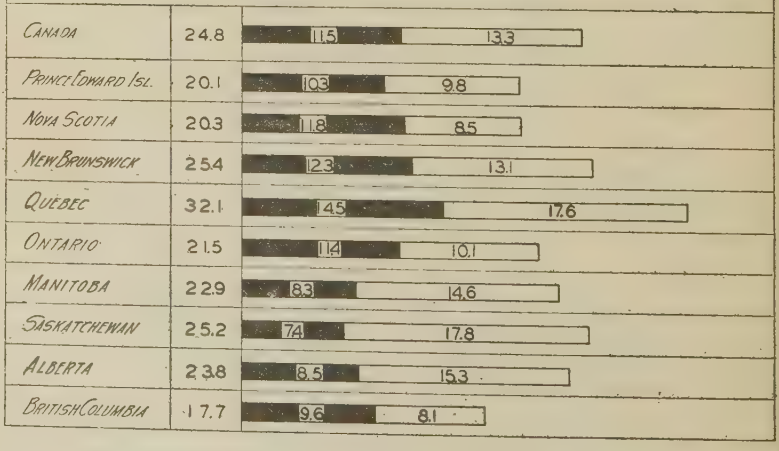
In Australia the rate of natural increase in 1926 was 12·6 per 1,000, in New Zealand in 1926 12·3, in England and Wales in 1926 6·2, in Scotland in 1926 7·9, and in the Irish Free State 6·5, so that Canada compares quite favourably with other British countries.

The rates of natural increase per annum per 1,000 of mean population for other countries in the latest years are as follows, the figures being for 1926 unless otherwise indicated:—Denmark 10·2; Japan 15·6; Netherlands 14·0; Norway 9·1; Finland 8·2; Italy (1925) 11·0; Switzerland 6·5; Sweden 5·1; Spain 10·9; France 1·3; Belgium 6·3; United States (registration area) 8·4; Union of South Africa (whites) 16·6.

The natural increase of the population of Canada has shown some tendency to decline in recent years. On the basis of the vital statistics of the Dominion, it declined from 156,573 or 17·8 per 1,000 of the population in 1921 to 150,084 or 16·5 per 1,000 in 1922, to 135,265 or 14·7 per 1,000 in 1923, to 145,972 or 15·8 per 1,000 in 1924, to 143,611 or 15·2 per 1,000 in 1925, and to 125,296 or 13·3 per 1,000 in 1926. A slight increase to 128,469 is shown by the unrevised figures for 1927, this figure giving a rate of 13·5 per 1,000 of the estimated population.

Statistics of the births, marriages, deaths and natural increase in cities of 10,000 and over are given for the calendar year 1926 in Table **2**, but these are not worked out as rates per 1,000 of population, though the census population in 1921 is furnished as some guide to the rate of natural increase. Particularly notable in this table is the very large number of births in such cities as Montreal and Quebec, as compared with Toronto, Hamilton, Ottawa and other cities of somewhat corresponding size. This greatly higher birth rate is in part counterbalanced by a considerably higher death rate, but the natural increase in Quebec cities is still considerably higher than in the cities of other provinces.

BIRTH RATES, DEATH RATES AND RATES OF NATURAL INCREASE IN CANADA AND ITS PROVINCES 1926



1.—Summary of Births, Marriages, Deaths and Natural Increase, by Provinces, for the calendar years 1922-1927.

NOTE.—All figures for 1927 are subject to revision. Birth, marriage and death rates are calculated for 1922-27 on estimated populations, except that for 1926 the figures of the quinquennial census of the Prairie Provinces are used for these provinces.

Provinces.	Years.	Births.	Birth rate per 1,000 population.	Marriages.	Marriage rate per 1,000 population.	Deaths.	Death rate per 1,000 population.	Excess of births over deaths.	Rate of natural increase per 1,000 population.
P. E. Island	1922	2,160	24·5	579	6·6	1,113	12·6	1,047	11·9
	1923	1,977	22·5	454	5·2	1,150	13·1	853	9·4
	1924	1,858	21·1	408	4·6	956	10·9	902	10·3
	1925	1,675	19·3	407	4·7	997	11·5	678	7·8
	1926	1,752	20·1	459	5·3	898	10·3	854	9·8
	1927	1,697	19·5	482	5·5	914	10·5	783	9·0
Nova Scotia	1922	12,693	24·0	3,169	6·0	6,679	12·6	6,014	11·4
	1923	11,680	22·0	3,246	6·1	6,868	13·0	4,822	9·1
	1924	11,801	22·1	2,999	5·6	6,583	12·3	5,218	9·8
	1925	11,400	21·2	2,964	5·5	6,045	11·3	5,355	10·0
	1926	10,980	20·3	2,861	5·3	6,366	11·8	4,614	8·5
	1927	11,054	20·4	3,040	5·6	6,360	11·7	4,694	8·6
New Brunswick	1922	11,564	29·5	2,799	7·1	5,158	13·2	6,406	16·3
	1923	10,704	27·0	2,911	7·4	5,013	12·7	5,698	14·4
	1924	10,717	26·9	2,972	7·4	4,923	12·3	5,794	14·5
	1925	10,949	27·2	2,908	7·2	4,960	12·3	5,989	14·9
	1926	10,340	25·4	2,938	7·2	5,002	12·3	5,338	13·1
	1927	10,453	25·4	2,881	7·0	4,879	11·9	5,574	13·6
Ontario	1922	71,430	24·0	23,360	7·8	34,034	11·4	37,396	12·5
	1923	70,056	23·2	24,842	8·2	35,637	11·8	34,419	11·4
	1924	71,510	23·4	24,038	7·9	33,078	10·8	38,432	12·6
	1925	70,122	22·6	23,074	7·4	33,960	10·9	36,162	11·7
	1926	67,617	21·5	23,632	7·5	35,909	11·4	31,708	10·1
	1927	67,671	21·2	24,677	7·7	34,757	10·9	32,914	10·3
Manitoba	1922	17,679	28·7	4,808	7·7	5,754	9·3	11,925	19·4
	1923	16,472	26·5	4,544	7·1	5,330	8·6	11,142	17·9
	1924	15,454	24·6	4,132	6·4	5,023	8·0	10,431	16·6
	1925	14,867	23·5	4,377	6·9	5,245	8·3	9,622	15·2
	1926	14,661	22·9	4,537	7·1	5,335	8·3	9,326	14·6
	1927	14,129	21·8	4,712	7·3	5,294	8·2	8,835	13·7
Saskatchewan	1922	22,339	29·0	5,061	6·4	6,119	7·9	16,220	21·0
	1923	20,947	26·8	5,045	6·3	6,151	7·9	14,796	18·9
	1924	21,539	27·0	4,792	5·9	5,772	7·2	15,767	19·8
	1925	20,582	25·4	4,909	6·1	5,628	6·9	14,954	18·5
	1926	20,716	25·2	5,483	6·7	6,060	7·4	14,656	17·8
	1927	20,925	25·0	5,701	6·8	6,003	7·2	14,922	17·8
Alberta	1922	16,163	27·3	4,272	7·0	5,264	8·9	10,899	18·4
	1923	15,060	25·3	4,117	6·6	5,006	8·4	10,076	16·9
	1924	14,597	24·4	4,159	6·5	4,858	8·1	9,739	16·3
	1925	14,924	24·7	4,355	7·2	4,697	7·8	10,227	17·0
	1926	14,456	23·8	4,503	7·4	5,159	8·5	9,297	15·3
	1927	14,630	23·7	4,703	7·6	5,027	8·1	9,603	15·6
British Columbia	1922	10,166	18·9	3,763	7·0	4,907	9·1	5,259	9·8
	1923	10,001	18·4	3,943	7·2	4,997	9·2	5,046	9·2
	1924	10,119	18·3	4,038	7·3	5,004	9·0	5,115	9·2
	1925	10,342	18·4	4,223	7·5	4,945	8·8	5,397	9·6
	1926	10,063	17·7	4,418	7·8	5,474	9·6	4,589	8·1
	1927	9,982	17·4	4,718	8·2	5,736	10·0	4,246	7·4
Canada (Registration Area)	**1922**	**164,194**	**25·2**	**47,811**	**7·3**	**69,028**	**10·6**	**95,166**	**14·6**
	1923	**156,897**	**23·9**	**49,102**	**7·4**	**70,182**	**10·7**	**86,834**	**13·2**
(As from 1921-25.)	**1924**	**157,595**	**23·7**	**47,538**	**7·1**	**66,197**	**9·9**	**91,398**	**13·7**
	1925	**154,861**	**23·0**	**47,217**	**7·0**	**66,477**	**9·9**	**88,384**	**13·1**
	1926	**150,585**	**22·1**	**48,831**	**7·2**	**70,203**	**10·3**	**80,382**	**11·8**
	1927	**150,541**	**22·1**	**50,914**	**7·4**	**68,970**	**10·0**	**81,571**	**11·8**
Quebec [1]	1922	88,377	35·1	16,609	6·5	33,459	13·3	54,918	21·8
	1923	83,579	32·2	17,361	6·3	35,148	13·6	48,431	18·6
	1924	86,930	33·3	17,591	7·1	32,356	13·0	54,574	22·0
	1925	87,527	33·1	17,427	6·5	32,300	12·2	55,227	20·9
	1926	82,165	32·1	17,827	7·0	37,251	14·5	44,914	17·6
	1927	83,064	31·9	18,551	7·1	36,166	13·9	46,898	18·0
Canada (exclusive of the Territories)	**1922**	**252,571**	**27·8**	**64,420**	**7·1**	**102,487**	**11·3**	**150,084**	**16·5**
	1923	**240,476**	**26·1**	**66,463**	**7·2**	**105,330**	**11·4**	**135,265**	**14·7**
	1924	**244,525**	**26·5**	**65,129**	**7·1**	**98,553**	**10·7**	**145,972**	**15·8**
	1925	**242,388**	**25·6**	**64,644**	**6·8**	**98,777**	**10·4**	**143,611**	**15·2**
	1926	**232,750**	**24·8**	**66,658**	**7·1**	**107,454**	**11·5**	**125,296**	**13·3**
	1927	**233,605**	**24·6**	**69,465**	**7·3**	**105,136**	**11·1**	**128,469**	**13·5**

[1] Rates for Quebec have been calculated on provincial estimates of population for 1922-25, and on the Dominion estimate of population for 1926 and 1927.

2.—Summary of Births, Marriages, Deaths and Natural Increase, in Cities of 10,000 and over, for the calendar year 1926.

Cities.	Census population, 1921.	Births.	Marriages.	Deaths.	Excess of births over deaths.
P. E. Island—					
Charlottetown	10,814	288	131	248	40
Nova Scotia—					
Halifax	58,372	1,359	582	858	501
Sydney	22,545	453	176	276	177
Glace Bay	17,007	602	128	275	327
New Brunswick—					
Saint John	47,166	1,097	455	707	390
Moncton	17,488	522	169	224	298
Quebec—					
Montreal	618,506	19,650	5,865	10,898	8,752
Quebec	95,193	4,164	818	2,211	1,953
Verdun	25,001	996	236	339	657
Hull	24,117	1,019	256	363	656
Sherbrooke	23,515	717	226	450	267
Three Rivers	22,367	1,234	297	549	685
Westmount	17,593	54	140	101	−47
Lachine	15,404	426	122	228	198
Outremont	13,249	126	90	106	20
St. Hyacinthe	10,859	296	85	244	52
Shawinigan Falls	10,625	620	91	191	429
Levis	10,470	290	51	255	35
Ontario—					
Toronto	521,893	11,185	5,861	6,295	4,890
Hamilton	114,151	2,774	1,219	1,423	1,351
Ottawa	107,843	2,869	942	1,618	1,251
London	60,959	1,331	669	1,061	270
Windsor	38,591	2,122	1,003	752	1,370
Brantford	29,440	610	266	360	250
Kitchener	21,763	689	301	282	407
Kingston	21,753	525	211	458	67
Sault Ste. Marie	21,092	552	225	222	330
Fort William	20,541	642	186	233	409
Peterborough	20,994	535	209	277	258
St. Catharines	19,881	592	211	316	276
Guelph	18,128	405	171	233	172
Stratford	16,094	366	145	198	168
St. Thomas	16,026	334	131	225	109
Port Arthur	14,886	498	156	205	293
Sarnia	14,877	376	158	206	170
Niagara Falls	14,764	455	221	194	261
Chatham	13,256	436	159	247	189
Galt	13,216	260	89	145	115
Belleville	12,206	347	126	199	148
Owen Sound	12,190	317	133	164	153
Oshawa	11,940	512	175	165	347
North Bay	10,692	423	101	135	288
Brockville	10,043	189	93	155	34
Manitoba—					
Winnipeg	179,087	4,495	2,373	1,698	2,797
Brandon	15,397	387	184	226	161
St. Boniface	12,821	761	115	417	344
Saskatchewan—					
Regina	34,432	1,093	649	422	671
Saskatoon	25,739	909	628	433	476
Moose Jaw	19,285	649	362	218	431
Alberta—					
Calgary	63,305	1,568	1,003	698	870
Edmonton	58,821	1,858	1,093	795	1,063
Lethbridge	11,097	349	194	170	179
British Columbia—					
Vancouver	117,217	3,102	1,836	1,639	1,463
Victoria	38,727	712	407	523	189
New Westminster	14,495	506	238	246	260

Natural Increase by Sex.—According to Table 3, the number of male children born in 1926 in Canada exceeded the total male deaths for the year by 62,884, while the gain in the female population during the same period was 62,412. Thus, while the number of male children born exceeded the females by 6,976, the higher mortality among males, *viz.*, 56,979 as compared with 50,475, reduced the net excess of the natural increase of the males to 472. Provisional figures for 1927 are as follows:— Males, births 120,367, deaths 56,196, natural increase 64,171; Females, births 113,238, deaths 48,940, natural increase 64,298.

3.—Excess of Births over Deaths in Canada, by Provinces and for each Sex, 1926, with Totals for 1921-26.

Provinces.	Males.			Females.			Both sexes.
	Births.	Deaths.	Excess of births over deaths.	Births.	Deaths.	Excess of births over deaths.	Excess of births over deaths.
Prince Edward Island..	887	452	435	865	446	419	854
Nova Scotia.....	5,638	3,374	2,264	5,342	2,992	2,350	4,614
New Brunswick.....	5,294	2,608	2,686	5,046	2,394	2,652	5,338
Quebec.....	42,475	19,232	23,243	39,690	18,019	21,671	44,914
Ontario.....	34,742	18,721	16,021	32,875	17,188	15,687	31,708
Manitoba.....	7,598	2,936	4,662	7,063	2,399	4,664	9,326
Saskatchewan.....	10,651	3,393	7,258	10,065	2,667	7,398	14,656
Alberta.....	7,410	2,931	4,479	7,046	2,228	4,818	9,297
British Columbia.....	5,168	3,332	1,836	4,895	2,142	2,753	4,589
Total, 1926.....	**119,863**	**56,979**	**62,884**	**112,887**	**50,475**	**62,412**	**125,296**
Total, 1925.....	**124,686**	**52,450**	**72,236**	**117,702**	**46,327**	**71,375**	**143,611**
Total, 1924.....	**125,590**	**52,227**	**73,363**	**118,935**	**46,326**	**72,609**	**145,972**
Total, 1923.....	**124,003**	**55,490**	**68,513**	**116,473**	**49,840**	**66,633**	**135,146**
Total, 1922.....	**129,055**	**54,505**	**74,550**	**123,516**	**47,982**	**75,534**	**150,084**
Total, 1921.....	**133,839**	**53,685**	**80,154**	**123,889**	**47,470**	**76,419**	**156,573**

Section 2.—Births.

Throughout almost the whole of the civilized world, the birth rate has in the past generation been on the decline, though the consequent decline in the rate of natural increase has to a considerable extent been offset by a decline in the death rate.

The crude birth rate of England and Wales, for example, was 35·4 per 1,000 population on the average of the decennium 1871-80, 32·5 in 1881-90 and 29·9 in 1891-1900. In 1913 the birth rate was 24·1, and, though it rose to 25·5 in 1920, it fell again to 22·4 in 1921, 19·7 in 1923, 18·8 in 1924, 18·3 in 1925 and 17·8 in 1926.

Similarly in France, the crude birth rate declined from an average of 25·4 per 1,000 population in the 1870's, 23·9 in the 1880's and 22·2 in the 1890's to 20·4 in 1920 and 19·4 in 1923, rising slightly to 19·6 in 1925 and falling to 18·8 in 1926. In Germany, again, the crude birth rate was 39·1 in the 1870's, 36·8 in the 1880's, 36·1 in the 1890's, 23·6 in 1922, 22·5 in 1925 and 19·3 in 1926.

In Canada the crude birth rate still stands at the comparatively high figure of 24·6 per 1,000 in 1927. This, however, is largely due to the influence of Quebec, where the birth rate stood at the very high figure of 31·9 per 1,000 in 1927, as compared with 21·2 per 1,000 in Ontario. In the other provinces the figures varied

from 17·4 per 1,000 in British Columbia to 25·4 in New Brunswick and 25·0 in Saskatchewan.

Statistics of births and birth rates for the years 1923-27 are given by provinces in Table 4, the provincial figures both of births and birth rates for Quebec being appended for the years 1923-25, so as to show national totals. The figures for 1927 are subject to revision.

4.—Number of Living Births and Birth Rates, by Provinces, 1923-1927.

Provinces.	Living Births.					Birth Rate per 1,000 Population.				
	1923.	1924.	1925.	1926.	1927[1].	1923.	1924.	1925.	1926.	1927.
P.E. Island	1,977	1,858	1,675	1,752	1,697	22·5	21·1	19·3	20·1	19·5
Nova Scotia	11,680	11,801	11,400	10,980	11,054	22·0	22·1	21·2	20·3	20·4
New Brunswick	10,704	10,717	10,949	10,340	10,453	27·0	26·9	27·2	25·4	25·4
Quebec	[2]	[2]	[2]	82,165	83,064	[2]	[2]	[2]	32·1	31·9
Ontario	70,056	71,510	70,122	67,617	67,671	23·2	23·4	22·6	21·5	21·2
Manitoba	16,472	15,454	14,867	14,661	14,129	25·9	23·9	23·5	22·9	21·8
Saskatchewan	20,947	21,539	20,582	20,716	20,925	26·3	26·4	25·4	25·2	25·0
Alberta	15,060	14,597	14,924	14,456	14,630	24·3	22·9	24·7	23·8	23·7
British Columbia	10,001	10,119	10,342	10,063	9,982	18·4	18·3	18·4	17·7	17·4
Former Registration Area	**156,897**	**157,595**	**154,861**	–	–	**23·7**	**23·4**	**23·0**	–	–
Quebec [3]	83,579	86,930	87,527	–	–	32·2	35·1	33·1	–	–
Canada (exclusive of Territories)	**240,476**	**244,525**	**242,388**	**232,750**	**233,605**	**26·1**	**26·5**	**25·6**	**24·8**	**24·6**

[1]1927 figures are subject to revision. [2]Not included in registration area. [3]Provincial figures.

Table 5 gives, in addition, statistics of the number of births in cities of 40,000 population and over for the years 1921 to 1927. Ten of these cities had in 1921 a total population of 1,328,814 or 20·7 p.c. of the population of the registration area, while the number of births shown below for the year 1921, 38,488, formed 22·0 p.c. of the births recorded for the same year. By 1927 the number of births in these ten cities which have been in the registration area from the beginning had declined to 32,438 or by 15·7 p.c.; the percentage of the total for the registration area, however, was 21·5, a decrease since 1921 of only 0·5 p.c. It would seem, therefore, that the recent decline in the birth rate has been but slightly more pronounced in the larger urban centres than throughout the registration area, although greater differences appear in particular years than over the period in question. Figures for Montreal and Quebec are added for 1926 and 1927.

5.—Living Births in Cities of 40,000 Population and over, 1921-1927.

Cities.	1921.	1922.	1923.	1924.	1925.	1926.	1927[1].
Montreal	[2]	[2]	[2]	[2]	[2]	19,650	19,458
Toronto	13,378	12,745	12,680	12,424	11,976	11,185	11,448
Winnipeg	6,323	5,840	5,246	4,786	4,660	4,495	4,506
Vancouver	3,298	2,960	2,998	3,045	3,196	3,102	3,100
Hamilton	3,498	3,146	3,033	3,140	2,938	2,774	2,865
Ottawa	3,250	3,273	3,055	3,044	3,026	2,869	3,003
Quebec	[2]	[2]	[2]	[2]	[2]	4,164	4,349
Calgary	2,086	1,884	1,683	1,612	1,634	1,568	1,640
London	1,458	1,448	1,380	1,452	1,352	1,331	1,286
Edmonton	2,136	2,143	1,951	1,852	1,943	1,858	1,934
Halifax	1,836	1,743	1,519	1,458	1,463	1,359	1,491
Saint John	1,225	1,259	1,304	1,238	1,246	1,097	1,165
Total	**38,488**	**36,441**	**34,849**	**34,051**	**33,434**	**55,452**	**56,245**

[1]1927 figures are subject to revision. [2]Not included in registration area.

Legitimate Birth Rates per 1,000 Married Women of Ages 15-44.—Undoubtedly the test of birth rate most generally accepted by vital statisticians is supplied by the comparison of the total number of legitimate births with the total number of married women between the ages of 15 and 44, though a small number of births occur where the mothers are either below 15 or past the 45th birthday. This test was applied to the registration area of Canada for 1921-24 in a table on p. 164 of the 1927-28 Year Book on the assumptions:—(1) that the number of married women in the country increased proportionately to the estimated increase of the general population between 1921 and 1924, and (2) that the number of Canadian-born, of British-born and of foreign-born married women increased between 1921 and 1924 proportionately to the estimated increase of the general population. Since the estimate covered only a short period since the census, the above assumptions may be accepted as approximately correct.

Two points of great importance were brought out by the table:—first, the substantial decline from 199 to 175·7 in the legitimate birth rate per 1,000 married women of ages 15 to 44 in the short period covered; secondly, the fact that in the registration area as a whole, foreign-born married women had proportionately rather more children than Canadian-born, and these considerably more children than British-born.

In Table 6 will be found for each of the provinces the percentage of legitimate children born alive to Canadian-born, British-born and foreign-born mothers respectively. It is noteworthy that children born to foreign-born mothers in 1926 outnumbered children born to Canadian-born mothers in the provinces of Saskatchewan and Alberta. For the Dominion as a whole, 72 p.c. of the children had Canadian-born mothers, 13 p.c. British-born mothers and 15 p.c. foreign-born mothers.

6.—Percentage of Legitimate Children born alive to Canadian-born, British-born or Foreign-born Mothers, in each Province, 1926.

Provinces.	Canadian-born.	British-born.	Foreign-born.
Prince Edward Island	95·7	1·3	2·9
Nova Scotia	86·5	9·7	3·7
New Brunswick	92·3	3·5	4·2
Quebec	92·0	2·8	5·2
Ontario	68·7	20·9	10·4
Manitoba	49·2	19·4	31·4
Saskatchewan	41·5	15·4	43·1
Alberta	36·3	19·6	44·1
British Columbia	38·2	35·7	26·1
Canada (exclusive of Territories)	**72·0**	**13·0**	**15·0**

Sex of Living Births.—Table 7 shows the number of living male and female births reported for each province in the registration area in the years 1922-27, together with the proportion of male to female births. Prince Edward Island is the only province in which the number of female births has in certain years exceeded male births. The preliminary figures for 1927 indicate that among every 1,000 born, 515 were males and 485 females. In other words, there were 1,063 males born to every 1,000 females.

7.—Births (exclusive of Stillbirths) by Sex, and Ratio of Males to Females, for Canada and by Provinces, 1922-1927.

NOTE.—The figures for 1927 are subject to revision.

Provinces.		Total.	Males.		Females.		Males to 1,000 Females.
			Number.	Per cent of total.	Number.	Per cent of total.	
Prince Edward Island	1922	2,160	1,104	51·1	1,056	48·9	1,045
	1923	1,977	981	49·6	996	50·4	98
	1924	1,858	928	49·9	930	50·1	998
	1925	1,675	877	52·4	798	47·6	1,09
	1926	1,752	887	50·6	865	49·4	1,02
	1927	1,697	890	52·4	807	47·6	1,10
Nova Scotia	1922	12,693	6,630	52·2	6,063	47·8	1,0
	1923	11,680	5,973	51·1	5,707	48·9	1,0
	1924	11,801	6,189	52·4	5,612	47·6	1,1
	1925	11,400	5,886	51·6	5,514	48·4	1,0
	1926	10,980	5,638	51·3	5,342	48·7	1,05
	1927	11,054	5,672	51·3	5,382	48·7	1,0
New Brunswick	1922	11,564	5,955	51·5	5,609	48·5	1,06
	1923	10,704	5,457	51·0	5,247	49·0	1,0
	1924	10,717	5,523	51·5	5,194	48·5	1,06
	1925	10,949	5,664	51·7	5,285	48·3	1,07
	1926	10,340	5,294	51·2	5,046	48·8	1,04
	1927	10,453	5,378	51·4	5,075	48·6	1,06
Ontario	1922	71,430	36,495	51·1	34,935	48·9	1,04
	1923	70,056	36,141	51·6	33,915	48·4	1,0
	1924	71,510	36,582	51·2	34,928	48·8	1,04
	1925	70,122	36,098	51·5	34,024	48·5	1,06
	1926	67,617	34,742	51·4	32,875	48·6	1,05
	1927	67,671	34,755	51·4	32,916	48·6	1,05
Manitoba	1922	17,679	8,926	50·5	8,753	49·5	1,02
	1923	16,472	8,397	51·0	8,075	49·0	1,04
	1924	15,454	7,804	50·5	7,650	49·5	1,02
	1925	14,867	7,634	51·3	7,233	48·7	1,05
	1926	14,661	7,598	51·8	7,063	48·2	1,07
	1927	14,129	7,425	52·6	6,704	47·4	1,10
Saskatchewan	1922	22,339	11,435	51·2	10,904	48·8	1,04
	1923	20,947	10,765	51·4	10,182	48·6	1,05
	1924	21,539	11,157	51·8	10,382	48·2	1,07
	1925	20,582	10,620	51·6	9,962	48·4	1,06
	1926	20,716	10,651	51·4	10,065	48·6	1,05
	1927	20,925	10,789	51·6	10,136	48·4	1,06
Alberta	1922	16,163	8,219	50·9	7,944	49·1	1,03
	1923	15,060	7,676	51·0	7,384	49·0	1,04
	1924	14,597	7,422	50·8	7,175	49·2	1,03
	1925	14,924	7,626	51·1	7,298	48·9	1,04
	1926	14,456	7,410	51·3	7,046	48·7	1,05
	1927	14,630	7,550	51·6	7,080	48·4	1,06
British Columbia	1922	10,166	5,293	52·0	4,873	47·9	1,08
	1923	10,001	5,176	51·8	4,825	48·2	1,07
	1924	10,119	5,203	51·4	4,916	48·6	1,05
	1925	10,342	5,329	51·5	5,013	48·5	1,06
	1926	10,063	5,168	51·4	4,895	48·6	1,05
	1927	9,982	5,095	51·0	4,887	49·0	1,04
Canada (Former Registration Area[1])	**1922**	**164,194**	**84,057**	**51·2**	**80,137**	**48·8**	**1,04**
	1923	**156,897**	**80,566**	**51·3**	**76,331**	**48·7**	**1,0**
	1924	**157,595**	**80,808**	**51·3**	**76,787**	**48·7**	**1,0**
	1925	**154,861**	**79,734**	**51·1**	**75,127**	**48·5**	**1,0**
	1926	**150,585**	**77,388**	**51·4**	**73,197**	**48·6**	**1,0**
	1927	**150,541**	**77,554**	**51·5**	**72,987**	**48·5**	**1,0**
Quebec[2]	1922	88,377	44,998	50·3	43,379	49·7	1,0
	1923	83,579	43,437	52·0	40,142	48·0	1,0
	1924	86,930	44,782	51·5	42,148	48·5	1,0
	1925	87,527	44,952	51·4	42,575	48·6	1,0
	1926	82,165	42,475	51·7	39,690	48·3	1,0
	1927	83,064	42,813	51·5	40,251	48·5	1,0
Canada (exclusive of the Territories)	**1922**	**252,571**	**129,055**	**51·1**	**123,516**	**48·9**	**1,0**
	1923	**240,476**	**124,003**	**51·6**	**116,473**	**48·4**	**1,0**
	1924	**244,525**	**125,590**	**51·4**	**118,935**	**48·6**	**1,0**
	1925	**242,388**	**124,686**	**51·4**	**117,702**	**48·6**	**1,0**
	1926	**232,750**	**119,863**	**51·5**	**112,887**	**48·5**	**1,0**
	1927	**233,605**	**120,367**	**51·5**	**113,238**	**48·5**	**1,0**

[1]As from 1921-25. [2]1922–1925 provincial figures.

Nativity of Parents.—Table 8 classifies the children born in 1926 by country of birth of parents, and furnishes some idea to what extent the coming generation of Canadian-born will be the product of Canadian-born, British-born or foreign-born parents. The term "country not specified", under country of birth, includes for the father illegitimate births and births of incomplete record, while for the mother it includes births of incomplete record only.

8.—Number and Percentage of Births (exclusive of Stillbirths) in Canada to Fathers and Mothers born in specified Countries, 1926.

Countries of Birth of Parents.	Number of births with father, mother or both parents born in specified country.			Percentage of births with father, mother or both parents born in specified country.		
	Father.	Mother.	Both Parents.	Father.	Mother.	Both Parents.
Canada	159,438	166,999	142,882	68·5	71·8	61·4
England	18,304	18,808	9,658	7·9	8·1	4·1
Ireland	2,540	2,195	873	1·1	0·9	0·4
Scotland	6,635	7,165	3,318	2·9	3·1	1·4
Wales	546	508	105	0·2	0·2	[2]
Other British Isles	100	90	23	[2]	[2]	[2]
Newfoundland	1,001	1,051	515	0·4	0·5	0·2
Other British Possessions	524	413	134	0·2	0·2	0·1
Austria	3,473	2,938	2,371	1·5	1·3	1·0
Belgium	531	472	307	0·2	0·2	0·1
Finland	458	471	364	0·2	0·2	0·2
France	512	464	194	0·2	0·2	0·1
Germany	711	635	255	0·3	0·3	0·1
Hungary	512	460	358	0·2	0·2	0·2
Italy	2,599	1,946	1,870	1·1	0·8	0·8
Norway	840	618	346	0·4	0·3	0·1
Poland[1]	4,249	3,714	3,053	1·8	1·6	1·3
Russia	5,443	4,620	3,665	2·3	2·0	1·6
Sweden	876	666	387	0·4	0·3	0·2
Other Europe	3,474	2,556	1,909	1·5	1·1	0·8
China and Japan	1,117	1,052	1,018	0·5	0·5	0·4
Other Asia	362	285	250	0·2	0·1	0·1
United States	11,940	13,394	4,096	5·1	5·8	1·8
Country not specified	6,565	1,230	204	2·8	0·5	0·1
Total	**232,750**	**232,750**	**178,155**[3]	**100·0**	**100·0**	**76·5**[4]

[1]Includes Galicia. [2]Less than one-tenth of one per cent. [3]This figure gives the number of children whose father and mother were born in the same country. The difference between this figure (178,155) and the total number of births (232,750) represents the number of children (54,595) whose father and mother were born in different countries.

[4]This excludes the percentage (23·5) of "mixed parentage", *i.e.*, where the two parents were not born in the same country.

Origins of Parents.—Table 9 gives the number and percentage of births during 1926, distributed by the principal origins.

9.—Number and Percentage of Births (exclusive of Stillbirths) in Canada to Fathers and Mothers of specified Origins, 1926.

Origins of Parents.	Number of births with father, mother or both parents of specified origin.			Percentage of births with father, mother, or both parents of specified origin.		
	Father.	Mother.	Both Parents.	Father.	Mother.	Both Parents.
English	52,854	55,908	38,445	22·7	24·0	16·5
Irish	21,136	20,071	9,409	9·1	8·6	4·0
Scotch	23,120	23,285	11,158	9·9	10·0	4·8
Welsh	858	711	129	0·4	0·3	0·1
French	89,400	92,425	85,139	38·4	39·7	36·6
German	9,497	10,047	6,951	4·1	4·3	3·0
Armenian	76	72	69	[1]	[1]	[1]
Austrian	1,629	1,778	1,393	0·7	0·8	0·6
Belgian	571	581	361	0·2	0·2	0·2
Bulgarian	74	32	26	[1]	[1]	[1]
Chinese	336	310	309	0·1	0·1	0·1
Czech and Slovak	325	368	232	0·1	0·2	0·1
Danish	491	409	159	0·2	0·2	0·1
Dutch	1,933	1,890	927	0·8	0·8	0·4
Finnish	498	586	449	0·2	0·3	0·2
Greek	290	171	167	0·1	0·1	0·1
Hebrew	2,043	2,023	1,977	0·9	0·9	0·8
Hindu	22	20	20	[1]	[1]	[1]
Hungarian	474	514	410	0·2	0·2	0·2
Icelandic	363	427	264	0·2	0·2	0·1
Indian	2,162	2,499	2,040	0·9	1·1	0·9
Italian	2,799	2,379	2,239	1·2	1·0	1·0
Japanese	800	793	790	0·3	0·3	0·3
Negro	350	382	312	0·2	0·2	0·1
Norwegian	1,696	1,789	911	0·7	0·8	0·4
Polish	1,988	2,172	1,487	0·9	0·9	0·6
Rumanian	707	601	479	0·3	0·3	0·2
Russian	2,210	2,041	1,636	0·9	0·9	0·7
Serbo-Croatian	208	185	168	0·1	0·1	0·1
Swedish	1,370	1,389	633	0·6	0·6	0·3
Swiss	269	215	91	0·1	0·1	[1]
Syrian	284	219	203	0·1	0·1	0·1
Ukrainian, including Galician	5,072	5,255	4,665	2·2	2·3	2·0
Other	210	165	96	0·1	0·1	[1]
Origin not specified	6,635	1,038	321	2·9	0·4	0·1
Total	**232,750**	**232,750**	**174,065**[2]	**100·0**	**100·0**	**74·8**[3]

[1] Less than one-tenth of one per cent. [2] This figure gives the number of children whose father and mother have the same origin. The difference between this figure (174,065) and the total number of births (232,750) represents the number of children (56,685) whose father and mother are of different origins. [3] This excludes the percentage (25·2) of mixed parentage, i.e., where the parents were not of the same origin.

Illegitimacy.—The ratio of illegitimate to total births is, generally speaking, low in Canada as compared with other countries.

Out of 232,750 living births in the nine provinces of Canada in 1926, 6,121, or 2·6 p.c., were returned as the issue of unmarried mothers. Preliminary figures for 1927 show a total of 233,605 living births, of which 6,687, or 2·9 p.c., were returned as the issue of unmarried mothers. Out of this number 3,455 were males and 3,232 females—a ratio of 1,069 males to every 1,000 females, as compared with a general rate for all births of 1,063 males to 1,000 females. This somewhat higher ratio of males to females among the issue of unmarried mothers as compared with the issue of married mothers is in accordance with experience in other countries See Table **10** for details.

10.—Number of Illegitimate Births, classified by Age of Mother, with the Percentage they form of Total Living Births, by Provinces, 1926, with Provisional Totals for 1927.

NOTE.—All figures for 1927 are subject to revision.

Ages of Mothers.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada.
Under 15 years	–	7	4	14	15	2	4	4	3	53
15–19 years	15	179	117	535	712	185	149	140	77	2,109
20–24 years	14	184	87	542	628	172	125	156	62	1,970
25–29 years	5	61	35	182	236	55	51	47	23	695
30–34 years	3	21	9	71	113	29	30	23	13	312
35–39 years	3	21	7	33	60	15	17	22	10	188
40–44 years	–	7	4	11	19	7	6	5	3	62
45–49 years	–	1	2	1	7	–	1	–	–	12
50 years and over	–	–	–	2	–	–	–	–	–	2
Not given	1	–	2	664	33	1	7	7	3	718
Total—										
1926	**41**	**481**	**267**	**2,055**	**1,823**	**466**	**390**	**404**	**194**	**6,121**
1927	**39**	**572**	**298**	**2,319**	**1,958**	**473**	**422**	**411**	**195**	**6,687**
Per cent of all living births—										
1926	2·3	4·4	2·6	2·5	2·7	3·2	1·9	2·8	1·9	2·6
1927	2·3	5·2	2·9	2·8	2·9	3·3	2·0	2·8	2·0	2·9
Male illegitimate births—										
1926	21	262	143	1,071	922	241	204	210	106	3,180
1927	23	281	158	1,180	996	253	227	222	115	3,455
Female illegitimate births—										
1926	20	219	124	984	901	225	186	194	88	2,941
1927	16	291	140	1,139	962	220	195	189	80	3,232

Stillbirths.—Statistics of the number of children born dead in 1926 are shown below for Canada, according to the status and age of the mother; provisional totals for 1927 are inserted.

11.—Stillbirths by Age of Mother and Legitimacy of Child in 1926, with Provisional Totals for 1927.

Ages of Mothers.	Unmarried Mothers.	Married Mothers.									Canada.
		P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	
Under 15 years of age	4	–	–	–	–	–	–	–	–	–	4
15–19 years	90	–	18	10	60	116	9	35	20	11	369
20–24 years	100	5	63	48	289	467	71	88	74	40	1,245
25–29 years	36	9	64	47	381	626	91	106	84	78	1,522
30–34 years	15	8	69	51	382	620	91	104	85	63	1,488
35–39 years	15	2	73	46	353	497	102	129	76	64	1,357
40–44 years	7	3	31	19	181	266	45	67	51	37	707
45 and over	–	1	7	1	23	38	7	7	7	3	94
Unknown	44	6	2	6	188	63	–	3	5	2	319
Total, 1926	**311**	**34**	**327**	**228**	**1,857**	**2,693**	**416**	**539**	**402**	**298**	**7,105**
Total, 1927	**302**	**39**	**353**	**268**	**2,034**	**2,641**	**438**	**525**	**436**	**265**	**7,301**
Ratio to total births, 1926	4·8	1·9	3·0	2·2	2·3	3·9	2·8	2·6	2·8	2·9	3·0
Ratio to total births, 1927	4·3	2·3	3·3	2·6	2·5	3·9	3·1	2·5	3·0	2·6	3·0

Birth Rates in Various Countries.—The relative position occupied by Canada and its individual provinces among the countries of the world with respect to crude birth rate (the annual number of births per 1,000 of population) is shown in Table 12.

12.—Crude Birth Rates of Various Countries in Recent Years.

Countries.	Years.	Crude Birth Rate.	Countries.	Years.	Crude Birth Rate.
Egypt	1925	43·0	Australia	1926	22·0
Russia (European)	1923	42·6	Western Australia	1926	22·0
Ceylon	1926	41·0	Prussia	1925	21·9
Chile	1925	39·6	Manitoba	1927	21·8
Costa Rica	1923	39·2	Finland	1926	21·6
Salvador	1926	36·1	Latvia	1924	21·6
Rumania	1925	35·2	Victoria	1925	21·5
Japan	1926	34·8	Ontario	1927	21·2
Jamaica	1925	34·6	New Zealand	1926	21·0
Quebec	1927	31·9	Denmark	1925	21·0
Spain	1926	29·9	Scotland	1926	20·9
Italy	1925	27·8	United States	1926	20·6
Newfoundland	1923	27·4	Irish Free State	1926	20·6
Hungary	1926	27·3	Nova Scotia	1927	20·4
Union of South Africa (Whites)	1926	26·2	South Australia	1926	20·0
Uruguay	1926	25·4	Norway	1926	19·7
New Brunswick	1927	25·4	Prince Edward Island	1927	19·5
Panama	1923	25·3	Germany	1926	19·3
Czechoslovakia	1925	25·1	Austria	1926	19·1
Saskatchewan	1927	25·0	Belgium	1926	18·9
Canada	**1927**	**24·6**	France	1926	18·8
Tasmania	1925	24·4	Switzerland	1926	18·2
New South Wales	1925	24·0	England and Wales	1926	17·8
Netherlands	1926	23·8	British Columbia	1927	17·4
Queensland	1925	23·8	Estonia	1925	17·3
Alberta	1927	23·7	Sweden	1926	16·9
Northern Ireland	1926	22·5			

Section 3.—Marriages and Divorces.

Subsection 1.—Marriages.

About a century ago it was observed in the United Kingdom that the number of marriages tended to be high when the price of wheat was low and to be low when the price of wheat was high. This was quite naturally the case among a population, the majority of which was living at a comparatively low standard of comfort, and where the staple food was thus the chief factor in the cost of living.

More recently, the curve showing marriage rates in the United Kingdom and other English-speaking countries has ceased to bear any constant relation to the price of the staple food of the people, though it still does so in poorer countries. Its place in influencing the marriage rate has, however, been taken by the general level of prosperity. Marriages in such countries as the United Kingdom, the United States, Canada and Australia tend to increase in "good times" and to diminish in "hard times", when great numbers of those who are contemplating marriage are led to postpone such marriage until the advent of better industrial conditions.

Even in the short period covered by the vital statistics of Canada, the truth of the above statement is supported by the evidence. In 1920, a year of great prosperity, the marriages taking place in the nine provinces numbered 80,931 or 9·4 per 1,000 of population; in 1921 they declined to 69,732 or 8·0 per 1,000; in 1922 to 64,420 or 7·2 per 1,000 population, largely owing to the industrial depression in these years; in 1923, a more prosperous year, they showed an increase to 66,463 or 7·4 per 1,000 of population. Again in 1924 and 1925 the rates fell to 7·1 and 7·0 per 1,000 population respectively, while in 1926 and 1927 the rates rose again to 7·1 and 7·3 per 1,000 respectively, probably influenced by the return of prosperity. It should be mentioned, of course, that there doubtless occurred as late as 1921 a

number of deferred marriages, which under more normal conditions would have occurred in the war years. Summary statistics of marriages contracted in 1921 to 1927 appear in Table **13**, the figures and rates for Quebec from 1921 to 1925 being taken from provincial sources.

13.—Number of Marriages and Marriage Rates, by Provinces, 1921-1927.

A. (Number of Marriages).

Years.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada.
1921	518	3,550	3,173	18,659	24,871	5,310	5,101	4,661	3,889	69,732
1922	579	3,169	2,799	16,609	23,360	4,808	5,061	4,272	3,763	64,420
1923	454	3,246	2,911	17,361	24,842	4,544	5,045	4,117	3,943	66,463
1924	408	2,999	2,972	17,591	24,038	4,132	4,792	4,159	4,038	65,129
1925	407	2,964	2,908	17,427	23,074	4,377	4,909	4,355	4,223	64,644
1926	459	2,861	2,938	17,827	23,632	4,537	5,483	4,503	4,418	66,658
1927[1]	482	3,040	2,881	18,551	24,677	4,712	5,701	4,703	4,718	69,465

B. (Marriage Rates per 1,000 Population).

1921	5·8	6·8	8·4	7·9	8·5	8·7	6·7	7·9	7·4	8·0
1922	6·5	6·0	7·1	6·5	7·8	7·8	6·6	7·2	7·0	7·2
1923	5·2	6·1	7·4	6·3	8·2	7·3	6·4	6·9	7·2	7·4
1924	4·6	5·6	7·4	7·1	7·9	6·6	6·0	6·9	7·3	7·1
1925	4·7	5·5	7·2	6·5	7·4	6·9	6·1	7·2	7·5	7·0
1926	5·3	5·3	7·2	7·0	7·5	7·1	6·7	7·4	7·8	7·1
1927[1]	5·5	5·6	7·0	7·1	7·7	7·3	6·8	7·6	8·2	7·3

[1] 1927 figures are subject to revision.

Age at Marriage.—The average age of all bridegrooms in the Dominion in 1926 was 29·3 years and that of all brides 25·1 years. The average excess of the bridegroom's age was thus 4·2 years. It may be noted in Table **14** that when the contracting parties are grouped by age of bridegroom, the average difference in age is less for the younger groups than for the older, grooms under 20 being 0·4 years younger than their brides, while the excess of the bridegroom's age was 1·5 years in the group 20-24, and steadily increased for each quinquennial age group until it was 10·9 years for bridegrooms 50 years and over. On the other hand, when the parties are grouped by the age of the bride, it is found that, although with less regularity than is shown in the table by age of grooms, the general tendency is for the older brides to marry men nearer their own age than in the case of the younger brides. Since these tables are based upon all marriages contracted during the year, the figures given should not be understood to signify the average ages at first marriage. Out of each 1,000 bridegrooms in 1926 904 were bachelors, 89 widowers, 7 divorced men; out of each 1,000 brides 929 were spinsters, 63 widows, 8 divorced women.

14.—Difference in Ages of Bridegrooms and Brides, 1926.

Age-groups of Bridegrooms.	Average age of Bride-groom.	Average age of Bride.	Average excess of Bride-groom's age.	Age-groups of Brides.	Average age of Bride.	Average age of Bride-groom.	Average excess of Bride-groom's age.
All bridegrooms	29·3	25·1	4·2	All brides	25·1	29·3	4·2
Under 20 years	19·1	19·5	—0·4	Under 20 years	18·5	24·6	6·1
20–24 years	22·8	21·3	1·5	20–24 years	22·3	26·4	4·1
25–29 years	27·3	23·4	3·9	25–29 years	27·1	30·2	3·1
30–34 years	32·1	25·9	6·2	30–34 years	32·1	35·5	3·4
35–39 years	37·3	29·0	8·3	35–39 years	37·3	40·4	3·1
40–44 years	42·2	33·0	9·2	40–44 years	42·2	45·7	3·5
45–49 years	47·2	37·5	9·7	45–49 years	47·3	51·1	3·8
50 years and over	59·3	48·4	10·9	50 years and over	58·2	60·4	2·2

15.—Average Ages of Parties contracting Marriages, 1926.

Provinces.	Average age of all Grooms.	Average age of all Brides.	Average excess of Groom's age over Bride's.
Prince Edward Island	31·2	26·4	4·8
Nova Scotia	30·0	25·3	4·7
New Brunswick	29·1	24·3	4·8
Quebec	28·7	25·2	3·5
Ontario	29·1	25·3	3·8
Manitoba	29·9	24·8	5·1
Saskatchewan	29·3	23·8	5·5
Alberta	30·1	24·5	5·6
British Columbia	31·5	26·5	5·0
Canada	**29·3**	**25·1**	**4·2**

Nativity of Brides and Bridegrooms.—In the Prairie Provinces and British Columbia, the majority of the bridegrooms in the marriages contracted between 1921 and 1926 were born outside of Canada, while the same was true of brides in British Columbia and Alberta. In the three Maritime Provinces, the Canadian-born brides and grooms showed a marked predominance, exceeding 80 p.c. in each case, and in Ontario over 65 p.c. of both brides and grooms were Canadian-born. In 1926, 66·8 p.c. of all grooms and 71·5 p.c. of all brides were born in Canada. Table **16** gives the number of marriages per 1,000 population in each province, as well as the percentage distribution of brides and grooms according to nativity.

16.—Nativity, by Provinces, of Persons Married in the Registration Area, 1921-1926.

Provinces.	Years.	Marriages.		Percentage distribution of Grooms and Brides by Nativity.					
		Total.	Per 1,000 population.	Born in provinces of residence.		Born in other provinces.		Born elsewhere.	
				Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.
P. E. Island	1921	518	5·8	92·3	94·6	5·0	1·9	2·7	3·5
	1922	579	6·6	91·9	93·3	4·7	2·6	3·4	4·1
	1923	454	5·2	90·1	94·5	3·7	2·4	6·2	3·1
	1924	408	4·6	88·7	93·1	7·4	3·7	3·9	3·2
	1925	407	4·7	90·9	93·4	4·9	2·2	4·1	4·4
	1926	469	5·3	88·9	94·3	5·5	2·2	5·7	3·5
Nova Scotia	1921	3,550	6·8	76·3	81·3	6·4	4·5	17·3	14·2
	1922	3,169	6·0	79·0	84·5	5·4	3·3	15·6	12·2
	1923	3,246	6·1	77·9	83·2	5·4	3·2	16·7	13·6
	1924	2,999	5·6	78·8	82·9	5·0	3·0	16·2	14·1
	1925	2,964	5·5	78·9	84·1	5·6	3·2	15·5	12·7
	1926	2,861	5·3	79·0	85·3	4·9	3·1	16·2	11·6
New Brunswick	1921	3,173	8·4	73·4	78·0	10·1	8·4	16·5	13·6
	1922	2,799	7·1	68·8	75·8	13·8	8·8	17·4	15·4
	1923	2,911	7·4	74·2	77·6	9·2	8·1	16·6	14·3
	1924	2,972	7·4	73·2	77·2	10·0	7·9	16·8	14·9
	1925	2,908	7·2	72·2	76·5	9·3	7·0	18·5	16·5
	1926	2,938	7·2	72·1	75·6	9·0	8·0	18·9	16·4
Ontario	1921	24,871	8·5	63·6	66·7	5·6	4·7	30·8	28·6
	1922	23,360	7·8	62·2	65·1	6·9	6·2	30·9	28·7
	1923	24,842	8·2	61·3	65·9	6·5	5·4	32·2	28·7
	1924	24,038	7·9	58·8	62·3	6·8	6·1	34·4	31·6
	1925	23,074	7·4	58·9	62·6	7·5	6·8	33·6	30·7
	1926	23,632	7·5	60·4	64·3	7·3	6·6	32·3	29·1
Manitoba	1921	5,310	8·7	26·4	37·2	18·1	14·1	55·5	48·7
	1922	4,808	7·8	26·8	38·8	16·8	12·9	56·4	48·3
	1923	4,544	7·3	27·8	40·1	17·2	13·8	55·0	46·2
	1924	4,132	6·6	28·4	43·1	17·0	13·4	54·6	43·5
	1925	4,377	6·9	32·4	44·7	15·6	11·3	51·9	44·0
	1926	4,537	7·1	35·4	47·7	14·2	12·2	50·3	40·2

16.—Nativity, by Provinces, of Persons Married in the Registration Area, 1921-1926—concluded.

Provinces.	Years.	Marriages.		Percentage distribution of Grooms and Brides by Nativity.					
		Total.	Per 1,000 population.	Born in provinces of residence.		Born in other provinces.		Born elsewhere	
				Grooms	Brides	Grooms	Brides	Grooms	Brides.
Saskatchewan	1921	5,101	6·7	7·1	15·6	31·4	28·1	61·5	56·3
	1922	5,061	6·6	8·2	17·3	30·1	27·6	61·7	55·1
	1923	5,045	6·4	9·0	20·8	31·9	27·5	59·2	51·7
	1924	4,792	6·0	11·2	24·6	30·2	25·6	58·6	49·8
	1925	4,909	6·1	13·2	26·6	29·0	24·8	57·8	48·6
	1926	5,483	6·7	15·1	31·0	28·8	24·6	56·1	44·4
Alberta	1921	4,661	7·9	7·0	14·2	26·2	25·1	66·8	60·7
	1922	4,272	7·2	7·8	16·5	26·5	23·6	65·7	59·9
	1923	4,117	6·9	9·1	17·6	23·7	23·0	67·2	59·4
	1924	4,159	6·9	11·6	22·5	25·0	22·4	63·4	55·1
	1925	4,355	7·2	13·6	25·1	24·0	20·5	62·5	54·4
	1926	4,503	7·4	13·3	25·7	24·1	21·7	62·5	52·6
British Columbia	1921	3,889	7·4	13·7	18·3	22·6	20·5	63·7	61·2
	1922	3,763	7·0	16·6	21·1	23·1	20·7	60·3	58·2
	1923	3,943	7·2	17·6	22·3	22·2	21·6	60·2	56·2
	1924	4,038	7·3	16·2	23·3	21·3	19·8	62·5	56·9
	1925	4,223	7·5	17·1	22·1	20·7	20·4	62·2	57·4
	1926	4,418	7·8	17·7	22·5	21·0	20·8	61·2	56·7
Canada (Registration Area).	**1921**	**51,073**	**8·0**	**46·9**	**52·0**	**13·0**	**11·3**	**40·1**	**36·7**
	1922	**47,811**	**7·4**	**46·3**	**51·8**	**13·7**	**11·8**	**40·0**	**36·4**
	1923	**49,102**	**7·4**	**47·1**	**53·4**	**12·9**	**11·2**	**40·1**	**35·4**
	1924	**47,538**	**7·1**	**46·0**	**52·5**	**12·9**	**11·2**	**41·1**	**36·3**
	1925	**47,217**	**7·0**	**46·1**	**52·6**	**13·2**	**11·3**	**40·7**	**36·1**
	1926	**48,831**	**7·2**	**46·8**	**53·9**	**13·1**	**11·7**	**40·1**	**34·5**
Quebec	1926	17,827	7·0	81·9	84·4	3·9	3·4	14·1	12·2
Canada (exclusive of territories)	**1926**	**66,658**	**7·1**	**56·2**	**62·0**	**10·7**	**9·5**	**33·2**	**28·5**

Marriage Rates in Various Countries.—For comparative purposes, the crude marriage rate per 1,000 of population in various countries of the world and in the provinces of Canada is shown for the indicated years in Table **17.**

17.—Crude Marriage Rates of Various Countries in Recent Years.

Countries.	Years.	Crude Marriage Rate per 1,000 Population.	Countries.	Years.	Crude Marriage Rate per 1,000 Population.
Ukraine	1923	11·2	Chile	1925	7·3
United States	1925	10·2	Spain	1926	7·3
Belgium	1925	9·6	**Canada**	**1927**	**7·3**
Czechoslovakia	1925	9·2	Manitoba	1927	7·3
Hungary	1926	9·1	England and Wales	1926	7·2
Rumania	1925	8·9	Austria	1926	7·2
Union of South Africa	1926	8·9	Tasmania	1925	7·1
Estonia	1923	8·6	Switzerland	1926	7·1
Latvia	1924	8·4	Quebec	1927	7·1
Japan	1926	8·3	New Brunswick	1927	7·0
British Columbia	1927	8·2	United Kingdom	1926	6·9
New South Wales	1925	8·1	Saskatchewan	1927	6·8
Victoria	1925	8·0	Finland	1926	6·4
New Zealand	1926	7·9	Scotland	1926	6·4
Australia	1926	7·9	Sweden	1926	6·3
South Australia	1925	7·8	Northern Ireland	1926	5·8
Ontario	1927	7·7	Norway	1926	5·7
Germany	1926	7·6	Uruguay	1926	5·6
Queensland	1925	7·6	Nova Scotia	1927	5·6
Alberta	1927	7·6	Prince Edward Island	1927	5·5
Denmark	1925	7·5	Iceland	1923	5·0
Western Australia	1925	7·5	Irish Free State	1926	4·6
Italy	1925	7·4	Salvador	1926	3·9
Netherlands	1926	7·4			

Subsection 2.—Divorces.

For many years subsequent to Confederation the number of divorces granted in Canada was very small, 1883, with 13 divorces, being the first year in which the number attained two figures, while 1903, with 21 divorces, was the record year up to that time. Thereafter the numbers grew more rapidly, 1909 showing 51 divorces and 1913, the last pre-war year, 60 divorces. This number was, however, less than one per 1,000 of the marriages contracted in Canada in these years.

The effect of the war was to increase very greatly the number of divorces granted in Canada. The causes may be found in the generally unsettling psychological effect of the war period, and the long separations between men on active service and their wives. The provision of new facilities for divorce is also to be considered; owing to a decision of the British Privy Council, divorces in the Prairie Provinces have subsequently to 1918 been granted by the courts of these provinces, so that Ontario and Quebec are now the only provinces in which the applicant for divorce must secure a special Private Act of Parliament.

The above-mentioned causes have tended to produce the recent increase in the number of divorces granted in Canada, which have grown from 114 in 1918 to 748 in 1927 and 785 in 1928, these numbers being those of final decrees, which alone really constitute divorces. More divorces were granted in 1928 alone than in the 46 years from 1868 to 1913. The statistics of divorces granted in the years from 1901 to 1928 inclusive will be found in Table **18.** (For divorces in each year prior to 1901 see 1921 Year Book, p. 825.)

18.—Statistics of Divorces granted in Canada, 1901-1928.

NOTE.—In Prince Edward Island only one divorce was granted from 1868 to 1928: this was in 1913. In consequence of a decision of the British Privy Council, divorces in Manitoba, Saskatchewan and Alberta have, subsequently to 1918, been granted by the courts of these provinces.

Years.	Granted by the Dominion Parliament.					Granted by the Courts.			Total for Canada.
	Ontario.	Quebec.	Northwest Territories.		Manitoba.	Nova Scotia.	New Brunswick.	British Columbia.	
			Alta.	Sask.					
1901	2	–		–	–	10	–	7	19
1902	2	–		–	–	9	1	3	15
1903	2	1		1	1	8	4	4	21
1904	5	1		–	–	6	2	5	19
1905	2	3		2	2	6	2	18	35
1906	10	3	1	–	–	5	1	17	37
1907	3	1	–	–	1	8[1]	3	9	25
1908	8	–	–	–	–	5	5	12	30
1909	8	4	1	1	2	8[1]	5	22	51
1910	14	2	–	1	3	13[1]	6	12	51
1911	13	4	2	–	3	10[1]	6	19	57
1912	9	3	2	1	1	4	4[2]	11	35
1913	20	4	4	1	6	–	4	20	60[6]
1914	18	7	4	2	2	10	12	15	70
1915	10	3	3	1	1	13	6	16	53
1916	18	1	1	2	2	14	11	18	67
1917	10	4	2	1	–	8	6	23	54
1918	10	2	2	1	–	24	10	65	114
1919	49	4	36[3]	3	88[3]	36	13	147	376
1920	91	9	64[4]	26[4]	42[4]	45	15	136	429
1921	101	9	84[4]	50[4]	122[4]	41	13	128	548
1922	90	6	129[4]	37[4]	97[4]	35	12	138	544
1923	105	11	87[4]	41[4]	81[4]	22	19	139[3]	505
1924	114	13	118[4]	28[4]	77[4,5]	42	15	136[3]	543
1925	121	13	101[4]	42[4]	79[4]	30	15	150	551
1926	113	10	154[4]	48[3,4]	85[4]	19	12	167	608
1927	182	13	148[4]	60[4]	102[3,4]	29	17	197	748
1928	213	25	168[4]	55[4]	79[4]	28	14[3]	203	785

[1] Includes one judicial separation. [2] Includes one not effective till court costs are paid. [3] One by Parliament. [4] Granted by courts. [5] Two granted by Parliament. [6] Includes one in P.E. Island.

Section 4.—Deaths.

Within the past century and more especially within the past generation there has occurred generally throughout the countries of the white world a notable decline in the death rate, except where man has brought death upon himself through wars and the aftermath of wars. How far this decline has been due to advances in medical science, how far to better sanitation and how far to the improvement in the general conditions of living as a result of the increase in the productive power of humanity, is in dispute, but concerning the facts there is no doubt.

Perhaps the most impressive testimony regarding this decline in the death rate is furnished by the mortality statistics of Sweden, where vital statistics have been kept with great accuracy for the whole nation ever since 1750. There the crude death rate declined from an average of 35·67 per 1,000 in the decade 1751–60 to 14·29 in the decade 1911-20 and 11·8 in 1926.

Similarly, in England, the crude death rate, which was 22·6 per 1,000 in the 60's, 21·3 in the 70's and 18·2 in the 90's of the last century, declined to 15·5 in 1906, 13·8 in 1913 and 11·6 and 12·3 (England and Wales) in 1926 and 1927. In Scotland, again, the rate was 22·1 in the 60's, 21·8 in the 70's, 18·5 in the 90's, 16·4 in 1906. 13·0 in 1926 and 13·5 in 1927.

Of course the preceding statements are not to be taken to mean that every year will show a decline in the death rate as compared with the preceding year. There will always be years of specially high mortality, as for instance 1918, when the death rate in Ontario, the most populous of the provinces of Canada, was 15·3 per 1,000 as against 12·0 in 1917 and 11·9 in 1919. (This was owing to the great influenza-pneumonia epidemic of that year.) Over a decade, however, these idiosyncrasies of individual years are reduced to negligibility, and it remains true that from decade to decade there is, generally speaking and under normal conditions, a decline in the crude death rate of the countries of the white man's world.

As for Canada, while the period elapsed since the introduction of complete and comprehensive vital statistics in 1920 has been too short for the establishing of a definite downward trend, there is nevertheless evident a rather extraordinary reduction in the death rate in the short period of seven years, the 1927 crude death rate for the eight provinces formerly included in the registration area being 10·0 per 1,000 as against 12·4 in 1920. Or, using provincial figures for Quebec for the years 1920 to 1925, the crude death rate for the Dominion as a whole has declined from 13·7 per 1,000 in 1920 to 11·1 per 1,000 (provisional figure) in 1927.

Subsection 1.—General Mortality.

Total deaths and crude death rates in recent years are given in Table 19 for the former registration area and for Canada, by provinces. The decline in the absolute number of deaths in the former registration area from 77,722 in 1920 to 70,203 in 1926 and 68,970 (provisional figure) in 1927, and the drop in the death rate from 12·4 in 1920 to 10·0 in 1927, are notable phenomena. Quebec figures from 1923 to 1925 are added from provincial sources.

19.—Deaths and Death Rates, by Provinces, 1923-1927.

Provinces.	Total Deaths.					Crude death rate per 1,000 population.				
	1923.	1924.	1925.	1926.	1927[1].	1923.	1924.	1925.	1926.	1927.[1]
P.E. Island	1,150	956	997	898	914	13·1	10·9	11·5	10·3	10·5
Nova Scotia	6,868	6,583	6,045	6,366	6,360	13·0	12·3	11·3	11·8	11·7
New Brunswick	5,013	4,923	4,960	5,002	4,879	12·7	12·3	12·3	12·3	11·9
Ontario	35,636	33,078	33,960	35,909	34,757	11·8	10·8	10·9	11·4	10·9
Manitoba	5,330	5,023	5,245	5,335	5,294	8·6	8·0	8·3	8·3	8·2
Saskatchewan	6,182	5,772	5,628	6,060	6,003	7·9	7·2	6·9	7·4	7·3
Alberta	5,006	4,858	4,697	5,159	5,027	8·4	8·1	7·8	8·5	8·1
British Columbia	4,997	5,004	4,945	5,474	5,736	9·2	9·0	8·8	9·6	10·0
Canada (Former Registration Area)	**70,182**	**66,197**	**66,477**	**70,203**	**68,970**	**10·6**	**9·8**	**9·7**	**10·3**	**10·0**
Quebec[2]	35,148	32,356	32,300	37,251	36,166	13·6	13·0	12·2	14·5	13·9
Canada (exclusive of Territories)	**105,330**	**98,553**	**98,777**	**107,454**	**105,136**	**11·4**	**10·7**	**10·4**	**11·5**	**11·1**

[1] 1927 figures are subject to revision. [2] 1923-1925 figures Provincial.

Age Distribution of Decedents.—The number of males and females dying in the nine provinces in 1926 and 1927 (provisional figure) is given by single years of age up to 5 and afterwards by quinquennial age groups up to 80 years of age in Table **20**, together with the percentage of the deaths which occurred in each group in each of these years. As illustrating the recent decline in infant mortality, it may be pointed out that the number of males under 1 year dying in 1927 was only 22·3 p.c. of the total number of male deaths, as against 23·8 p.c. in 1926, and of females, 19·3 p.c. as against 20·1 p.c. Similarly, deaths under 5 years of age among males fell from 30·5 p.c. of the total number of deaths in 1926 to 28·8 in 1927, and among females, from 27·1 p.c. to 25·8 p.c. In the Dominion as a whole, the median age at death in 1926 was 45·50 (45·16 for males and 45·89 for females). In 1927, the provisional figures show the median age at death as 46·00 years (46·10 for males and 45·89 for females).

20.—Distribution of Deaths in Canada by certain Age-Groups, Numbers and Percentages, 1926-1927[1].

Age-groups.	Male.		Female.		Male.		Female.	
	1926.	1927[1].	1926.	1927[1].	1926.	1927[1].	1926.	1927[1].
	No.	No.	No.	No.	p.c.	p.c.	p.c.	p.c.
Under 1 year	13,537	12,524	10,155	9,441	23·8	22·3	20·1	19·8
1 year	2,001	1,863	1,780	1,533	3·5	3·3	3·5	3·1
2 years	846	772	790	741	1·5	1·4	1·6	1·5
3 years	559	573	516	527	1·0	1·0	1·0	1·1
4 years	410	442	416	398	0·7	0·8	0·8	0·8
Total under 5	17,353	16,174	13,657	12,640	[1] 30·5	28·8	27·1	25·8
5-9 years	1,378	1,477	1,126	1,288	2·4	2·6	2·2	2·6
10-14 years	1,015	1,116	902	1,017	1·8	2·0	1·8	2·1
15-19 years	1,311	1,307	1,286	1,361	2·3	2·3	2·5	2·8
20-24 years	1,338	1,438	1,551	1,592	2·4	2·6	3·1	3·3
25-29 years	1,221	1,396	1,461	1,491	2·1	2·5	2·9	3·0
30-34 years	1,248	1,292	1,516	1,438	2·2	2·3	3·0	2·9
35-39 years	1,638	1,580	1,716	1,693	2·9	2·8	3·4	3·5
40-44 years	1,871	1,791	1,673	1,629	3·3	3·2	3·3	3·3
45-49 years	2,061	2,111	1,812	1,804	3·6	3·8	3·6	3·7
50-54 years	2,249	2,378	1,838	1,860	4·0	4·2	3·6	3·8
55-59 years	2,647	2,820	2,093	2,112	4·7	5·0	4·2	4·3
60-64 years	3,314	3,366	2,680	2,682	5·8	6·0	5·3	5·5
65-69 years	3,977	4,055	3,371	3,291	7·0	7·2	6·7	6·7
70-74 years	4,427	4,337	3,664	3,481	7·8	7·7	7·3	7·2
75-79 years	4,235	4,082	3,791	3,639	7·4	7·3	7·5	7·4
80-89 years	4,821	4,571	5,177	4,883	8·5	8·2	10·3	10·0
90 years +	787	782	1,118	1,028	1·4	1·4	2·2	2·1
Stated ages	56,891	56,073	50,432	48,919	100·0	100·0	100·0	100·0
Age not stated	88	123	43	21	–	–	–	–
Total all ages	**56,979**	**56,196**	**50,475**	**48,940**	**100·0**	**100·0**	**100·0**	**100·0**

[1] 1927 figures are subject to revision.

Death Rates by Age-Groups.—The death rate per 1,000 persons living in each group were shown in a table on p. 175 of the 1927-28 Year Book for the years 1921-24. The calculations were made on the assumption that the age constitution of the estimated population of the later years was the same as that of the ascertained population of the census year.

In this table there was indicated a declining death rate at the earlier ages, a stationary death rate between 35 and 55, and an increasing death rate after 55. While the Canadian period of observation is too short to establish these as general conclusions, the experience of other countries tends to confirm them as being common to the civilized countries of the world.

When the death-rate by sexes in various age-groups was considered it was evident that in most age-groups the female death-rate was lower than that of males, though there are significant exceptions. In 1924, the female death-rate was lower in the groups up to 20 and above 55. In the groups from 20-24 and 45-54 it was the same as that for males, but in the groups from 25 to 44 it was distinctly higher.

Adjusted Death Rate.—While the crude death rate gives the actual mortality per 1,000 of population, the differing age constitution of the population in different communities and the high mortality among infants and elderly people makes the crude death rate no true test of the relative expectation of life in such communities. Where the age constitution of a particular group is particularly favourable to low mortality, as, for example, in an army in peace time, the crude death rate will be lower than elsewhere.

When comparisons of the rates of mortality in several communities are made by age-groups as is done for the eight provinces in Table 21 on p. 162 of the Canada Year Book, 1925, the effects of differences in age constitution between these communities are eliminated, but by a rather cumbrous process, which does not bring together and express as a single figure the facts of the situation. It has therefore been considered desirable to adopt a particular community as a standard, and to find what the death rates of other communities would have been if the age and sex constitution of their population had corresponded to those of the community taken as a standard. The "standard" population chosen for this purpose in England and Wales and the United States is the "standard million", based on the age and sex distribution per million of the population of England and Wales at the census of 1901. This age and sex distribution was as follows:—

Age-groups.	Persons.	Males.	Females.
All ages	1,000,000	483,543	516,457
Under 5 years	114,262	57,039	57,223
5-9 years	107,209	53,462	53,747
10-14 years	102,735	51,370	51,365
15-19 years	99,796	49,420	50,376
20-24 years	95,946	45,273	50,673
25-34 years	161,579	76,425	85,154
35-44 years	122,849	59,394	63,455
45-54 years	89,222	42,924	46,298
55-64 years	59,741	27,913	31,828
65-74 years	33,080	14,691	18,389
75 years and over	13,581	5,632	7,949

The process above described has been applied to the population of the eight provinces, the former registration area of Canada, in Table **21**, in which it may be noted that the comparatively high crude death rates in the Maritime Provinces and Ontario, due to an unfavourable age distribution of their population, are considerably lower when adjusted to the "standard million". The reverse is the case in the Prairie Provinces and British Columbia, where the low crude death rate is due in part to the favourable age distribution of the population. For the registration area as a whole the adjusted death rate is somewhat lower than the crude death rate, indicating that the age distribution of our population is somewhat less favourable to low mortality than was the case with the "standard million" of England and Wales at the census of 1901.

When Quebec is included for 1926, the crude rates for the Dominion are: for both sexes 11·5, for males 11·8 and for females 11·1 per 1,000, and the adjusted rates 11·1, 11·6 and 10·7 respectively. For the province of Quebec, the crude rates for both sexes in 1926 were 14·5, for males 15·0 and for females 14·1, and the adjusted rates for both sexes 14·0, for males 14·4 and for females 13·7.

21.—Crude and Adjusted Death Rates in the Former Registration Area of Eight Provinces, by Provinces and Sex, 1924-1926.

Provinces.	1924.			1925.			1926.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
P.E. Island—									
Crude	11·0	10·7	10·9	11·6	11·3	11·5	10·3	10·4	10·3
Adjusted	8·4	8·0	8·3	8·9	8·5	8·7	7·9	7·8	7·8
Nova Scotia—									
Crude	12·7	11·9	12·3	11·3	11·3	11·3	12·3	11·3	11·8
Adjusted	10·8	9·9	10·3	9·6	9·4	9·5	10·5	9·4	9·9
New Brunswick—									
Crude	12·9	11·7	12·3	12·8	11·8	12·3	12·6	12·0	12·3
Adjusted	11·2	10·2	10·7	11·1	10·2	10·7	10·9	10·4	10·7
Ontario—									
Crude	11·1	10·5	10·8	11·2	10·7	10·9	11·8	11·0	11·4
Adjusted	10·3	9·5	9·9	11·3	9·7	10·0	10·9	9·9	10·4
Manitoba—									
Crude	8·2	7·7	8·0	8·8	7·8	8·3	8·8	7·8	8·3
Adjusted	8·9	8·4	8·7	9·6	8·5	9·1	9·4	8·7	9·1
Saskatchewan—									
Crude	7·3	7·2	7·2	7·3	6·5	6·9	7·6	7·1	7·4
Adjusted	8·3	8·1	8·1	8·3	7·3	7·7	8·7	8·3	8·5
Alberta—									
Crude	8·2	8·0	8·1	8·1	7·4	7·8	8·8	8·1	8·5
Adjusted	9·6	9·0	9·1	10·1	8·3	8·7	10·1	9·4	9·8
British Columbia—									
Crude	10·0	7·9	9·0	9·7	7·7	8·8	10·5	8·6	9·6
Adjusted	10·4	8·6	9·5	10·1	8·4	9·2	11·0	9·3	10·2
Canada (Registration Area)—									
Crude	**10·2**	**9·7**	**9·9**	**10·2**	**9·5**	**9·9**	**10·6**	**9·9**	**10·3**
Adjusted	**10·0**	**9·3**	**9·5**	**10·0**	**9·1**	**9·5**	**10·4**	**9·5**	**9·9**

Causes of Death.—More than 80 p.c. of all deaths recorded in the registration area were due in the years 1921 to 1927 to the 30 causes of death specified in Tables **22** and **23**. Attention may be drawn to the decline in the number of deaths from ill-defined diseases as showing the increasing accuracy of diagnoses and of the resulting statistics (Table **22**).

22.—Deaths in the Former Registration Area of Canada, by Principal Causes, 1923-1927, and in the Present Registration Area, 1926 and 1927.

Int.list No.[1]	Causes of death.	1923.	1924.	1925.	1926.	1927.	1926[2].	1927[2].
1	Typhoid fever	480	287	311	209	242	465	1,111
7	Measles	350	483	171	510	253	892	616
8	Scarlet fever	322	329	258	205	217	363	412
9	Whooping cough	747	536	558	639	476	1,242	1,030
10	Diphtheria	851	848	615	546	541	913	1,010
11	Influenza	3,578	1,306	2,182	3,089	2,408	5,174	3,445
31	Tuberculosis, lungs	3,959	3,821	3,779	3,786	3,821	6,485	6,428
32-37	Tuberculosis, other organs	859	829	753	866	798	1,444	1,336
43-49	Cancer	5,157	5,528	5,526	5,774	6,004	7,614	7,912
57	Diabetes mellitus	722	637	634	763	794	1,046	1,083
58	Anæmia chlorosis	756	811	814	856	619	1,040	794
71	Meningitis	287	322	274	272	297	797	811
74	Cerebral hæmorrhage, apoplexy	2,467	2,348	2,284	2,480	2,364	3,033	2,933
75-76	Paralysis	698	704	683	693	686	1,322	1,274
80	Infantile convulsions (under 5 years)	477	451	431	413	384	571	552
87-90	Diseases of the heart	7,491	7,180	7,587	8,538	8,903	11,415	11,775
91	Diseases of the arteries	3,164	3,690	3,805	3,994	4,149	4,981	5,110
99	Bronchitis	751	444	395	413	314	587	506
100-101	Pneumonia	6,237	5,007	4,149	5,785	5,145	8,427	7,555
113-114	Diarrhœa and enteritis	2,061	1,891	2,198	1,679	1,707	5,445	5,526
117	Appendicitis	843	924	941	925	960	1,321	1,381
118	Hernia, intestinal obstruction	615	725	669	656	640	889	911
128-129	Nephritis	2,472	2,667	2,880	3,122	3,167	5,138	5,240
135	Diseases of the prostate	375	428	493	556	473	734	640
143-150	Puerperal causes	849	945	873	890	892	1,317	1,295
159	Congenital malformations	990	1,061	1,101	984	902	1,550	1,322
160-163	Diseases of early infancy	5,729	5,363	5,047	5,446	5,216	9,902	9,209
164	Senility (old age)	2,918	2,566	2,097	2,046	1,840	2,764	2,461
165-174	Suicides	538	535	586	596	670	680	756
175-203	Violent deaths (suicides excepted)	3,833	3,670	3,873	3,870	4,080	5,189	5,492
	Other specified causes	8,383	8,597	8,390	8,858	9,338	13,457	14,150
	Total specified causes	68,959	64,933	65,357	69,459	68,300	106,197	104,076
204-205	Ill-defined diseases	1,223	1,264	1,120	744	670	1,257	1,060
	Total Deaths	**70,182**	**66,197**	**66,477**	**70,203**	**68,970**	**107,454**	**105,136**

[1] The numbers given in this column refer to the International List of Causes of Death, as revised in 1920 by the International Commission on the Classification of Diseases and Causes of Death. This classification is accepted in almost all civilized countries. [2] For the whole nine provinces, Quebec having come into the registration area as from Jan. 1, 1926. Figures for 1927 are subject to revision.

23.—Death Rates per 100,000 Population in the Registration Area, by Principal Causes, 1923-1927, and in the Present Registration Area, 1926 and 1927.

Int. list No.	Causes of death.	1923.	1924.	1925.	1926.	1927.	1926.[1]	1927[1].
1	Typhoid fever	7	4	5	3	4	5	12
7	Measles	5	7	3	7	4	10	6
8	Scarlet fever	5	5	4	3	3	4	4
9	Whooping cough	11	8	8	9	7	13	11
10	Diphtheria	13	13	9	8	8	10	11
11	Influenza	54	20	32	45	35	55	36
31	Tuberculosis, lungs	60	57	56	56	55	69	68
32-37	Tuberculosis, other organs	13	12	11	13	12	15	14
43-49	Cancer	78	83	82	85	87	81	83
57	Diabetes mellitus	11	10	9	11	12	11	11
58	Anæmia chlorosis	11	12	12	13	9	11	8
71	Meningitis	4	5	4	4	4	8	9
74	Cerebral hæmorrhage, apoplexy	38	35	34	36	34	32	31
75-76	Paralysis	11	11	10	10	10	14	13
80	Infantile convulsions (under 5 years)	7	7	6	6	6	6	[illegible]
87-90	Diseases of the heart	114	108	113	125	129	122	124
91	Diseases of the arteries	48	55	56	59	60	53	54
99	Bronchitis	11	7	6	6	5	6	5
100-101	Pneumonia	95	75	76	85	75	90	79
113-114	Diarrhœa and enteritis	31	28	33	25	25	58	58
117	Appendicitis	13	14	14	14	14	14	15
118	Hernia, intestinal obstruction	9	11	10	10	9	9	10
128-129	Nephritis	38	40	43	46	46	55	56
135	Diseases of the prostate	6	6	7	8	7	8	7
143-150	Puerperal causes	13	14	13	13	13	14	14
159	Congenital malformations	15	16	16	14	13	17	14
160-163	Diseases of early infancy	87	81	75	80	76	106	97
164	Senility (old age)	44	39	31	30	27	29	26
165-174	Suicides	8	8	9	9	10	7	8
175-203	Violent deaths (suicides excepted)	58	55	57	57	59	55	58
	Other specified causes	127	129	125	130	135	143	149
	Total specified causes	1,048	975	970	1,019	989	1,132	1,095
204-205	Ill-defined diseases	19	19	17	11	10	13	11
	Total Deaths	**1,067**	**994**	**987**	**1,030**	**999**	**1,146**	**1,106**

[1] Canada, including Quebec, not previously included in the registration area.
Rates for 1927 are subject to revision.

Vital Statistics of Yukon and Northwest Territories.—The vital statistics of the Yukon and the Northwest Territories have been collected and compiled for 1924, 1925 and 1926. They have not been included with those of the registration area, because of the difficulty of securing complete and accurate information in these isolated areas and the very small numbers affected. In the Yukon Territory the births reported numbered 31 in 1924, 22 in 1925 and 27 in 1926, marriages 4 in 1924, 17 in 1925 and 12 in 1926, deaths 38 in 1924, 63 in 1925 and 68 in 1926. In the Northwest Territories, births reported were 94 in 1924, 57 in 1925 and 7[illegible] in 1926, marriages 37 in 1924, 35 in 1925 and 3 in 1926, deaths 47 in 1924, 32 in 1925 and 51 in 1926.

Comparative Crude Death Rates of Different Countries.—In Table 24 will be found a comparative statement of the crude death rates of various countries and provinces for the latest available year. It is worthy of note that three Canadian provinces have the lowest death rates in the list, and that the registration area of Canada has a lower death rate than any other leading countries except Australia, New Zealand, South Africa (whites) and the Netherlands, Norway and Denmark. The low death rates in the Prairie Provinces are in all three cases due in part to a favourable age distribution of population.

24.—Crude Death Rates of Various Countries in Recent Years.

Countries.	Years.	Crude Death Rate.	Countries.	Years.	Crude Death Rate.
Saskatchewan	1927	7·2	United States (Reg. Area)	1926	12·2
Alberta	1927	8·1	Belgium	1926	12·8
Manitoba	1927	8·2	Iceland	1923	12·8
New Zealand	1926	8·7	Scotland	1926	13·0
South Australia	1926	8·7	Finland	1926	13·4
Western Australia	1926	8·9	Greece	1921	13·8
Queensland	1925	8·9	Quebec	1927	13·9
Tasmania	1926	9·1	Irish Free State	1926	14·1
New South Wales	1925	9·2	Newfoundland	1923	14·2
Australia	1926	9·4	Latvia	1924	14·8
Victoria	1925	9·5	Argentina	1921	14·8
Union of South Africa (Whites)	1926	9·6	Austria	1926	14·9
Netherlands	1926	9·8	Northern Ireland	1926	15·0
British Columbia	1927	10·0	Estonia	1924	15·2
Prince Edward Island	1927	10·5	Czechoslovakia	1925	15·2
Uruguay	1926	10·5	Hungary	1926	16·6
Norway	1926	10·6	Italy	1925	16·8
Denmark	1925	10·8	France	1926	17·5
Ontario	1927	10·9	Spain	1926	19·0
Panama	1923	11·0	Japan	1926	19·2
Canada	**1927**	**11·1**	Bulgaria	1924	20·7
Germany	1926	11·5	Rumania	1925	21·0
England and Wales	1926	11·6	Jamaica	1925	21·4
Nova Scotia	1927	11·7	Ceylon	1926	24·7
Switzerland	1926	11·7	British India	1925	24·7
Sweden	1926	11·8	Egypt	1925	26·2
Prussia	1925	11·9	Chile	1925	27·6
New Brunswick	1927	11·9			

Subsection 2.—Infantile and Maternal Mortality.

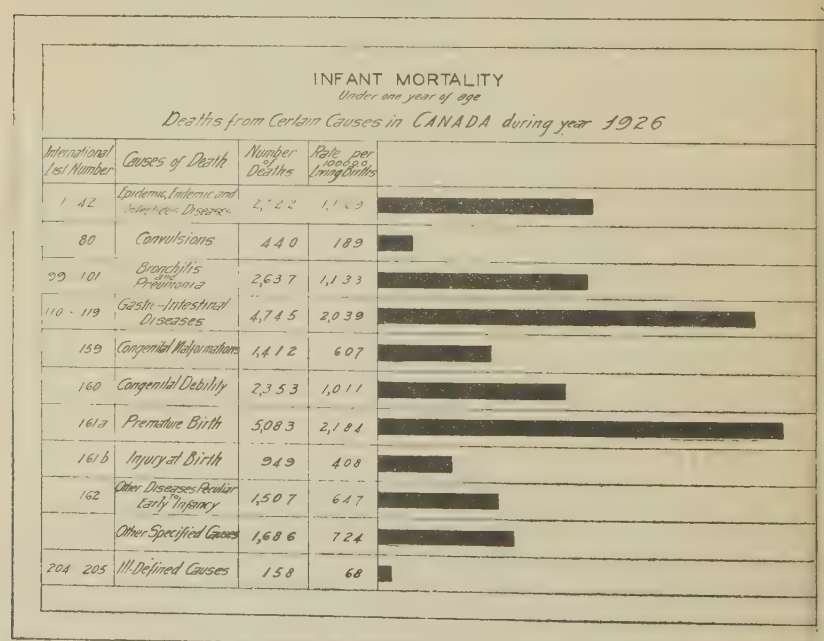
In recent years a great part of the energy devoted by the medical profession and sanitarians to effect a decline in the death rate has gone to reduce infantile mortality, and in this field a large measure of success has been attained. In Canada, both the Dominion, provincial and municipal health authorities have taken part in the struggle to reduce infantile mortality, and usually, in the absence of epidemics, each year is showing an improvement. Even in the seven years for which the figures are available for the former registration area, there is evident a very considerable decline in infantile mortality. In 1920 more than 10 p.c. of all children born died in the first year of life; in 1921 the proportion dropped to 8·8 p.c. or 14,893 deaths in a total of 168,979 births; in 1922 the infantile death rate showed a further betterment, dropping to 8·7 p.c. or 14,256 deaths in 164,194 births, while in 1923 it showed a slight increase to 8·8 p.c. In 1924, however, there was a considerable improvement, the rate falling to 7·85 p.c. and increasing but slightly in 1925 and 1926 to 7·86 p.c. and 7·99 p.c. respectively. The provisional figure for 1927 is 7·46 p.c., the lowest on record for the former registration area. Deaths of children under one year of age constituted 17·1 p.c. of all deaths in 1926, and 16·3 p.c. (provisional figure) in 1927, as compared with 20·7 p.c. in 1922. Table 25 summarizes the statistics for the former registration area and for Canada exclusive of the territories for the years 1923-27, the figures for the latest year being provisional.

25.—Infantile Mortality, by Provinces, together with the rate per 1,000 Living Births, 1923-1927.

Provinces.	Infant Deaths.					Infant Death Rate per 1,000 Births.				
	1923.	1924.	1925.	1926.	1927[1].	1923.	1924.	1925.	1926.	1927[1].
	No.	No.	No.	No.	No.					
Prince Edward Island	176	133	116	123	113	89·0	71·6	69·3	70·2	66·6
Nova Scotia	1,139	1,118	887	882	1,023	97·5	94·7	77·8	80·3	92·5
New Brunswick	1,135	1,098	1,096	1,095	998	106·0	102·5	100·1	105·9	95·5
Ontario	5,950	5,418	5,530	5,302	4,810	84·9	75·8	78·9	78·4	71·1
Manitoba	1,411	1,173	1,184	1,122	1,014	85·7	75·9	79·6	76·5	71·8
Saskatchewan	1,925	1,634	1,662	1,681	1,560	91·9	75·9	80·8	81·1	74·6
Alberta	1,418	1,227	1,125	1,233	1,104	94·2	84·1	75·4	85·3	75·3
British Columbia	668	574	569	588	605	66·8	56·7	55·0	58·4	60·6
Canada (former Registration Area)	**13,822**	**12,375**	**12,169**	**12,026**	**11,227**	**88·1**	**78·5**	**78·6**	**79·9**	**71·9**
Quebec[2]	11,011	10,334	10,141	11,666	10,738	131·7	118·9	115·8	142·0	126·2
Canada (exclusive of the Territories)	**24,833**	**22,709**	**22,310**	**23,692**	**21,965**	**103·2**	**92·9**	**92·0**	**101·8**	**94·0**

[1] 1927 figures are subject to revision. [2] Provincial figures 1923–25.

Infantile Mortality by Causes of Death.—Thirteen principal causes of death accounted in the years 1921 to 1924 for about 85 p.c. of the infantile mortality experienced in the registration area, as is shown in Table **26.** It is noteworthy that three causes present at birth, *viz.*, premature birth and injuries at birth, congenital debility and congenital malformations, accounted for more than 46 p.c. of the infant deaths of 1925. Indeed, in that year 51·54 p.c. of all infants dying were less than one month old, and 37·0 p.c. less than one week old, as is shown in Table 27



26.—Infant Mortality in the Former Registration Area, by Principal Causes of Death, 1925-1927, with Totals for 1921-1924.

NOTE.—Figures for the years 1921 to 1924, by causes of death, will be found at pp. 182-3 of the 1927-28 Year Book.

Causes of death.	International list No.	Year.	Both Sexes.			Males.		Females.	
			No.	Per cent distribution by cause of death.	Rate per 1,000 living births.	No.	Rate per 1,000 living births.	No.	Rate per 1,000 living births.
Measles	7	1925	41	0·3	0·3	22	0·3	19	0·3
		1926	149	1·2	1·0	76	1·0	73	1·0
		1927	71	0·6	0·5	42	0·5	29	0·4
Scarlet fever	8	1925	9	0·1	0·1	4	0·1	5	0·1
		1926	14	0·1	0·1	6	0·1	8	0·1
		1927	15	0·1	0·1	12	0·2	3	[2]
Whooping cough	9	1925	368	3·0	2·4	179	2·2	189	2·5
		1926	416	3·5	2·8	184	2·4	232	3·2
		1927	301	2·7	2·0	159	2·1	14	1·9
Diphtheria	10	1925	33	0·3	0·2	21	0·3	12	0·2
		1926	28	0·2	0·2	17	0·2	11	0·2
		1927	23	0·2	0·2	11	0·1	12	0·2
Influenza	11	1925	383	3·1	2·5	216	2·7	167	2·2
		1926	439	3·7	2·9	259	3·3	180	2·5
		1927	386	3·4	2·6	222	2·9	164	2·2
Dysentery	16	1925	46	0·4	0·3	25	0·3	21	0·3
		1926	3	[1]	[2]	2	[2]	1	[2]
		1927	1	[1]	[2]	–	–	1	[2]
Erysipelas	21	1925	42	0·3	0·3	23	0·3	19	0·3
		1926	51	0·4	0·3	28	0·4	23	0·3
		1927	57	0·5	0·4	33	0·4	24	0·3
Tuberculosis	31-37	1925	121	1·0	0·8	68	0·9	53	0·7
		1926	126	1·0	0·8	77	1·0	49	0·7
		1927	103	0·9	0·7	58	0·7	45	0·6
Syphilis	38	1925	43	0·4	0·3	27	0·3	16	0·2
		1926	44	0·4	0·3	25	0·3	19	0·3
		1927	53	0·5	0·4	28	0·4	25	0·3
Meningitis (simple)	71a	1925	109	0·9	0·7	57	0·7	52	0·7
		1926	87	0·7	0·6	54	0·6	33	0·5
		1927	84	0·7	0·6	50	0·6	34	0·5
Convulsions	80	1925	364	3·0	2·4	215	2·7	149	2·0
		1926	336	2·8	2·2	205	2·6	131	1·8
		1927	327	2·9	2·2	186	2·4	141	1·9
Bronchitis	99	1925	94	0·8	0·6	49	0·6	45	0·6
		1926	103	0·9	0·7	65	0·8	38	0·5
		1927	72	0·6	0·5	36	0·5	36	0·5
Pneumonia	100-101	1925	1,447	11·9	9·3	827	10·4	620	8·3
		1926	1,531	12·7	10·2	888	11·5	643	8·8
		1927	1,342	12·0	8·9	769	9·9	573	7·9
Diseases of the stomach	110-112	1925	182	1·5	1·2	108	1·4	74	1·0
		1926	148	1·2	1·0	77	1·0	71	1·0
		1927	162	1·4	1·1	95	1·2	67	0·9
Diarrhœa and enteritis	113	1925	1,558	12·8	10·1	863	10·8	695	9·3
		1926	1,196	9·9	7·9	696	9·0	500	6·8
		1927	1,132	10·1	7·5	640	8·3	492	6·7
Hernia, intestinal obstruction	118	1925	95	0·8	0·6	56	0·7	39	0·5
		1926	81	0·7	0·5	48	0·6	33	0·5
		1927	71	0·6	0·5	47	0·6	24	0·3
Congenital malformations	159	1925	998	8·2	6·4	565	7·1	433	5·8
		1926	886	7·4	5·9	469	6·1	417	5·7
		1927	840	7·5	5·6	432	5·6	408	5·6
Congenital debility	160	1925	1,230	10·1	7·9	699	8·8	531	7·1
		1926	1,041	8·7	6·9	599	7·7	442	6·0
		1927	1,026	9·1	6·8	586	7·6	440	6·0
Premature birth	161a	1925	2,896	23·8	18·7	1,619	20·3	1,277	17·0
		1926	3,012	25·0	20·0	1,729	22·3	1,283	17·5
		1927	2,836	25·3	18·8	1,641	21·2	1,195	16·4
Injury at birth	161b	1925	528	4·3	3·4	346	4·3	182	2·4
		1926	509	4·2	3·4	296	3·8	213	2·9
		1927	537	4·8	3·6	326	4·2	211	2·9
Other diseases peculiar to early infancy	162	1925	384	3·2	2·5	225	2·8	159	2·1
		1926	876	7·3	5·8	495	6·4	381	5·2
		1927	804	7·2	5·3	444	5·7	360	4·9

[1]Less than one-tenth of one per cent. [2]Less than 0·1 per 1,000 living births.

26.—Infant Mortality in the Former Registration Area, by Principal Causes of Death, 1925-27, with Totals for 1921-1924—concluded.

Causes of death.	International list No.	Year.	Both Sexes.			Males.		Females.	
			No.	Per cent distribution by cause of death.	Rate per 1,000 living births.	No.	Rate per 1,000 living births.	No.	Rate per 1,000 living births.
Other specified causes	—	1925	797	6·5	5·1	457	5·7	340	4·5
		1926	849	7·1	5·6	502	6·5	347	4·7
		1927	865	7·7	5·7	491	6·3	374	5·1
Ill-defined causes	204–205	1925	401	3·3	2·6	241	3·0	160	2·1
		1926	101	0·8	0·7	64	0·8	37	0·5
		1927	119	1·1	0·8	67	0·9	52	0·7
All causes	—	1921	14,893	100·0	88·1	8,558	98·2	6,335	77·4
		1922	14,256	100·0	86·8	8,175	97·3	6,081	75·9
		1923	13,822	100·0	88·1	7,914	98·2	5,908	77·4
		1924	12,375	100·0	78·5	6,960	86·1	5,415	70·5
		1925	12,169	100·0	78·6	6,912	86·7	5,257	70·0
		1926	12,026	100·0	79·9	6,861	88·7	5,165	70·6
		1927	11,227	100·0	74·6	6,375	82·2	4,852	66·5

27.—Proportion per 1,000 Deaths of Infants under 1 year of age occurring at each Age Period, 1926.

Ages at Death.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada
Under 1 month	495·9	477·3	434·7	413·5	553·6	525·8	498·5	502·8	554·4	468·1
Under 1 day	122·0	132·7	158·0	172·4	220·3	165·8	177·3	191·4	210·9	182·7
1 day and under 1 week	203·3	195·0	144·3	118·1	196·2	183·6	167·2	163·8	217·7	151·4
1 week and under 2 weeks	81·3	63·5	53·9	45·3	59·0	69·5	67·8	69·7	52·7	53·5
2 weeks and under 3 weeks	48·8	48·8	39·3	40·8	39·0	57·9	41·6	43·0	39·1	41·4
3 weeks and under 1 month	40·7	37·4	39·3	36·9	39·0	49·0	44·6	34·9	34·0	38·4
1 month and under 2 months	65·0	80·5	84·9	113·6	79·6	75·8	94·0	74·6	88·4	97·2
2 months and under 3 months	56·9	108·8	93·2	98·7	61·7	71·3	65·4	84·3	76·5	85·0
3 months and under 4 months	73·2	68·0	72·1	71·8	47·0	52·6	61·9	56·0	42·5	63·4
4 months and under 5 months	40·7	45·4	57·5	60·0	49·4	51·7	52·9	51·1	34·0	54·2
5 months and under 6 months	24·4	53·3	44·7	47·7	35·6	36·5	36·3	47·0	42·5	43·1
6 months and under 7 months	48·8	21·5	52·1	41·8	35·5	30·3	41·6	35·7	25·5	38·1
7 months and under 8 months	56·9	27·2	38·4	38·1	31·9	30·3	35·1	36·5	35·7	35·1
8 months and under 9 months	32·5	36·3	40·2	36·1	31·7	33·0	32·7	31·6	34·0	34·1
9 months and under 10 months	24·4	32·9	24·7	29·9	27·5	28·5	33·3	26·0	25·5	29·1
10 months and under 11 months	40·7	23·8	29·2	23·8	26·6	33·9	25·6	25·1	18·7	25·1
11 months and under 1 year	40·7	24·9	28·3	24·9	20·0	30·3	22·6	29·2	22·1	24·1
Total	**1000·0**	**1000·0**	**1000·0**	**1000·0**	**1000·0**	**1000·0**	**1000·0**	**1000·0**	**1000·0**	**1000·0**

Infantile Mortality in Canadian Cities.—Table 28 shows for the cities of 40,000 population and over in the registration area of Canada the number of infant deaths and the rate of deaths per 1,000 living births, for the years 1923 to 1927. In the latter year Calgary had the lowest infant death rate, 51·8, with Vancouver the next lowest, 52·3. Ottawa and Saint John had comparatively high death rates 95·2 and 89·3 respectively, the death rate in the capital comparing unfavourably with that in the three other leading cities of Ontario, (Toronto, Hamilton and London), their rates being 70·8, 65·3 and 79·3 respectively. During the period in question the rate of infantile mortality in Halifax has shown a marked decline of nearly 40 p.c. from 138·2 to 83·2, and that in Ottawa a decline of 27 p.c. from 131·3 to 95·2.

The infant mortality rate per 1,000 living births showed a decline in Montreal from 143·9 in 1926 to 132·0 in 1927, and that in Quebec City from 185·6 in 1926 to 147·9 in 1927.

28.—Infantile Mortality in Cities of 40,000 Population and Over, 1923-1927.

NOTE.—These statistics may be compared with those in Table 5, giving the number of births in cities of 40,000 population and over during the years 1923 to 1927.

Cities.	Deaths under one year.					Rate per 1,000 living births.				
	1923.	1924.	1925.	1926.	1927[1].	1923.	1924.	1925.	1926.	1927.[1]
Montreal	[2]	[2]	[2]	2,827	2,569	[2]	[2]	[2]	143·9	132·0
Toronto	972	912	871	843	810	76·7	73·4	72·7	75·4	70·8
Winnipeg	421	324	322	313	273	80·3	67·7	69·1	69·6	60·6
Vancouver	192	147	145	172	162	64·0	48·3	45·4	55·4	52·3
Hamilton	238	226	241	199	187	78·5	72·0	82·0	71·7	65·3
Ottawa	401	341	348	342	286	131·3	112·0	115·0	119·2	95·2
Quebec	[2]	[2]	[2]	773	643	[2]	[2]	[2]	185·6	147·9
Calgary	153	96	108	131	85	90·9	59·6	66·1	83·5	51·8
London	103	87	93	91	102	74·6	59·9	68·8	68·4	79·3
Edmonton	173	147	136	155	113	88·7	79·4	70·0	83·4	58·4
Halifax	210	141	140	127	124	138·2	96·7	95·7	93·5	83·2
Saint John	149	131	152	118	104	114·3	105·8	122·0	107·6	89·3
Total	**3,012**	**2,552**	**2,556**	**6,091**	**5,458**	**86·4**	**74·9**	**76·4**	**109·8**	**97·0**

[1] 1927 figures are subject to revision. [2] Not in registration area.

Infantile Mortality in Various Countries.—The rate of infantile mortality to living births has been greatly reduced in civilized countries by the recent advances in medical science and in sanitation. The low record is held at the present time by New Zealand, where in 1926 the rate of infantile mortality was only 39·8 per 1,000 living births as compared with 68 in 1905. Queensland, with an infantile mortality rate of 45·4 in 1925, made a remarkable record for a sub-tropical country, while Norway and Switzerland with rates of 50·3 and 56·5 in the latest available years, were the lowest among European countries.

As showing the improvement in recent years, it may be stated that the rate of infantile mortality in England and Wales has been reduced from 128 per 1,000 living births in 1905 to 70·2 in 1926, while the rate in Germany has declined from 196 in 1904 to 101·4 in 1926. In the Netherlands, again, the rate has declined from 131 per 1,000 living births in 1905 to 61·1 in 1926. Statistics are given by leading countries and by provinces in Table 29.

29.—Rate of Infantile Mortality per 1,000 Living Births in Various Countries of the World in Recent Years.

Countries.	Years.	Rate of Infantile Mortality.	Countries.	Years.	Rate of Infantile Mortality.
New Zealand	1926	39·8	United States (Birth Reg. Area)	1926	73·3
South Australia	1926	45·0	Irish Free State	1926	74·4
Queensland	1925	45·4	Saskatchewan	1927	74·6
Tasmania	1926	47·0	Alberta	1927	75·5
Norway	1924	50·3	Denmark	1925	79·8
Australia	1926	54·0	Scotland	1926	83·1
New South Wales	1925	54·9	Northern Ireland	1926	84·9
Switzerland	1926	56·5	Finland	1926	85·6
Western Australia	1925	56·8	Latvia	1926	87·9
Victoria	1925	57·0	France	1925	89·0
Sweden	1926	57·1	Nova Scotia	1927	92·5
British Columbia	1927	60·6	Uruguay	1926	93·4
Netherlands	1926	61·1	Belgium	1925	93·7
Union of South Africa (Whites)	1926	64·8	**Canada**	**1927**	**94·0**
Prince Edward Island	1927	66·6	New Brunswick	1927	95·5
England and Wales	1926	70·2	Germany	1926	101·4
Ontario	1927	71·1	Prussia	1925	104·3
Manitoba	1927	71·8	Newfoundland	1923	104·7
British Isles	1926	72·4	Estonia	1923	107·0

29.—Rate of Infantile Mortality per 1,000 Living Births in Various Countries of the World in Recent Years—concluded.

Countries.	Years.	Rate of Infantile Mortality.	Countries.	Years.	Rate of Infantile Mortality.
Italy	1925	119·5	Hungary	1926	167·5
Austria	1926	123·1	Jamaica	1925	173·3
Spain	1926	125·6	Ceylon	1926	174·1
Quebec	1927	129·3	British India	1925	174·4
Japan	1926	137·5	Rumania	1925	191·8
Egypt	1922	140·0	Costa Rica	1923	222·1
Salvador	1926	155·0	Chile	1925	257·9
Czechoslovakia	1926	155·2			

Infantile Mortality in Cities.—In former times cities were considered to be "the graveyards of population". The number of deaths, consequent upon the rapid spread of infectious diseases, was generally greater than the number of births and it was the prevailing opinion that cities would naturally come to an end if they were not being constantly reinforced by fresh young life from the prolific countryside. The unhealthiness of cities was especially destructive of infant life and it is one of the greatest triumphs of our time that city life is in our days, if not as healthy, yet not necessarily more dangerous to human life and especially to infant life, than life in the country as a whole.

To give particular examples, the rate of infantile mortality in London, England was 64 per 1,000 living births in 1926, as compared with a rate for England and Wales of 70·2 per 1,000. New York experienced in 1925 an infantile mortality of 64 per 1,000, as against a rate of 73·3 per 1,000 for the registration area of the United States in 1926. The department of the Seine (Paris), on the other hand, had in 1926 an infantile mortality of 98 per 1,000 living births, as compared with 89·0 for France in 1925. Again, Berlin in 1926 had an infant mortality of 93 per 1,000 living births, as compared with 101 in Germany, and Vienna an infant mortality in 1924 of 99 per 1,000 living births, as compared with 123 for Austria in 1924.

In Canada, our experience, except in the province of Quebec, has also been rather favourable to the cities. Montreal had in 1927 an infantile mortality of 132 per 1,000 living births as compared with 129 for the province of Quebec. On the other hand, Toronto had in 1927 an infantile mortality of 70·8 per 1,000 living births as against 71·1 for the province of Ontario, and this is typical of the other larger cities of the Dominion.

The infant mortality in the cities of Canada has been greatly reduced in the years since the inauguration of Dominion vital statistics. Thus the rate for Toronto has fallen from 90 in 1921 to 71 in 1927, that for Winnipeg from 77·5 to 60·6, for Vancouver from 58 to 52, for Hamilton from 88 to 65, for Ottawa from 130 to 9[illegible] for London from 92 to 79, for Edmonton from 89 to 58, for Halifax from 134 to 8[illegible] for Saint John from 147 to 89. Altogether, in the 10 cities of 40,000 population and over in the former registration area of Canada, there were 38,488 living births in 1921 and 3,541 infant deaths, being a rate of 92 per thousand living births. In 1927 in these same cities there were 32,438 living births, but only 2,491 infant deaths, or a rate of 76·8 per 1,000 living births.

30.—Rate of Infantile Mortality per 1,000 Living Births in Great Cities of the World in Recent Years.

Cities.	Years.	Rate of Infantile Mortality.	Cities.	Years.	Rate of Infantile Mortality.
Wellington	1925	35	Dresden	1926	76
Victoria, B.C.	1926	39	Antwerp	1926	77
Amsterdam	1926	40	La Plata	1920	78
Stockholm	1926	45	Regina	1926	79
Oslo	1926	48	London, Ont.	1927	79
Adelaide	1925	49	Sheffield	1926	80
Brisbane	1925	50	Edinburgh	1926	80
Auckland	1925	51	Moncton	1926	80
Vancouver	1926	52	Manchester	1926	83
Calgary	1927	52	Halifax	1927	83
Frankfort-on-Main	1926	54	Munich	1926	87
Sydney, N.S.W.	1925	57	Johannesburg	1926	88
Edmonton	1927	58	Cork	1926	88
Melbourne	1925	60	Saint John	1927	89
Winnipeg	1927	61	Berlin	1926	93
London, Eng.	1926	64	Cologne	1926	96
New York	1925	64	Saskatoon	1926	96
Hamilton	1927	65	Paris	1926	98
Perth, W. Australia	1925	66	Leipzig	1926	98
Chicago	1926	67	Vienna	1924	99
Hobart	1925	68	Prague	1925	100
Copenhagen	1926	69	Liverpool	1926	103
Brandon	1926	70	Breslau	1926	103
Cape Town	1926	70	Glasgow	1926	104
Birmingham, Eng.	1926	70	Montreal	1927	132
Toronto	1927	71	Quebec	1927	148
Hamburg	1926	74	Madras	1926	278
Washington	1924	76	Bombay	1926	388

Maternal Mortality.—A subject of cognate interest with that of infantile mortality is the maternal mortality arising out of child-birth. This maternal mortality is shown by Table 31 to be at its lowest among mothers in their twenties, and to increase with mothers of more advanced years. The mortality among mothers of different ages per 1,000 living births to mothers at those ages in the eight provinces constituting the registration area for the years 1921 to 1925, is shown for the years 1921 to 1927, while the totals are given for all the provinces for 1926 and 1927. The maternal mortality is shown by age groups for 1927 and by totals for earlier years in Table 32, also by causes for 1927 in Table 33.

31.—Maternal Mortality in the Former Registration Area, by Age Groups, with Rates per 1,000 Living Births, 1921-1927, and Totals for all Provinces for 1926 and 1927.

NOTE.—1927 figures are subject to revision.

Age groups.	Years.	Living Births.	Maternal Deaths.		Age groups.	Years.	Living Births.	Maternal Deaths.	
			Number.	Rate per 1,000 Living Births.				Number.	Rate per 1,000 Living Births.
Under 20 years	1921	10,336	43	4·2	25-29 years....	1921	46,764	189	4·0
	1922	10,372	47	4·5		1922	45,309	193	4·3
	1923	9,440	46	4·9		1923	43,240	159	3·7
	1924	9,832	52	5·3		1924	42,982	190	4·4
	1925	10,255	44	4·3		1925	42,016	181	4·3
	1926	9,779	47	4·8		1926	40,300	168	4·2
20-24 years....	1921	42,237	137	3·2	30-39 years....	1921	60,222	401	6·7
	1922	40,093	147	3·7		1922	58,941	398	6·8
	1923	37,912	140	3·7		1923	57,098	404	7·1
	1924	38,208	155	4·1		1924	57,143	438	7·7
	1925	37,212	143	3·8		1925	55,944	382	6·8
	1926	36,672	157	4·3		1926	54,516	405	7·4

31.—Maternal Mortality in the Former Registration Area, by Age Groups, w th Rates per 1,000 Living Births, 1921-1927, and Totals for all Provinces for 1926 and 1927—concluded.

Age groups.	Years.	Living Births.	Maternal Deaths.		Age groups.	Years.	Living Births.	Maternal Deaths.	
			Number.	Rate per 1,000 Living Births.				Number.	Rate per 1,000 Living Births.
40-49 years....	1921	9,420[1]	98	10·4	**Total**.....	**1921**	**168,979**	**868**	**5·1**
	1922	9,458	121	12·8		**1922**	**161,194**	**907**	**5·5**
	1923	9,178	99	10·8		**1923**	**156,897**	**849**	**5·4**
	1924	9,405	110	11·7		**1924**	**157,595**	**945**	**6·0**
	1925	9,414	122	13·0		**1925**	**154,861**	**873**	**5·6**
	1926	9,299	111	11·9		**1926**	**150,585**	**890**	**5·9**
						1927	**150,541**	**892**	**5·9**
50 years and over.	1921	[2]	[2]	[2]		**1926**[3]	**232,750**	**1,317**	**5·7**
	1922	21	1	–		**1927**[3]	**233,605**	**1,295**	**5·5**
	1923	29	1	–					
	1924	25	–	–					
	1925	20	1	–					
	1926	19	2	–					

[1] Living births to mothers 40 years old and over.
[2] Included with births to and deaths of mothers 40-49 years.
[3] Includes Quebec.

32.—Maternal Mortality in each Province by Age Groups, 1927, with Totals for 1921-1927.

NOTE.—1927 figures are subject to revision.

Age groups.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada.[1]
15–19.....	–	5	2	18	21[2]	1	2	5	5	59[2]
20–24.....	1	14	10	67	66	6	27	19	11	221
25–29.....	1	15	14	84	88	23	18	16	16	275
30–39.....	2	27	25	178	175	35	57	42	25	566
40 years and over.....	–	15	11	56	51	7	13	10	11	174
Total, 1927.....	**4**	**76**	**62**	**403**	**401**	**72**	**117**	**92**	**68**	**1,295**
Total, 1926.....	**8**	**51**	**66**	**427**	**381**	**87**	**147**	**85**	**65**	**1,317**
Total, 1925.....	**14**	**62**	**51**	**–**	**388**	**95**	**117**	**86**	**60**	**873[3]**
Total, 1924.....	**9**	**78**	**49**	**–**	**418**	**86**	**145**	**91**	**69**	**945[3]**
Total, 1923.....	**5**	**84**	**49**	**–**	**369**	**76**	**118**	**85**	**63**	**849[3]**
Total, 1922.....	**8**	**70**	**59**	**–**	**370**	**99**	**127**	**111**	**63**	**907[3]**
Total, 1921.....	**7**	**56**	**47**	**–**	**387**	**81**	**128**	**111**	**51**	**868[3]**
Rate per 1,000 living births, 1927.	2·4	6·9	5·9	4·9	5·9	5·1	5·6	6·3	6·8	5·5
Rate per 1,000 living births, 1926.	4·6	4·6	6·4	5·2	5·6	5·9	7·1	5·9	6·5	5·7
Rate per 1,000 living births, 1925.	8·4	5·4	4·7	–	5·5	6·4	5·7	5·8	5·8	5·6[3]
Rate per 1,000 living births, 1924.	4·8	6·6	4·6	–	5·8	5·6	6·7	6·2	6·8	6·0[3]
Rate per 1,000 living births, 1923.	2·5	7·2	4·6	–	5·3	4·6	5·6	5·6	6·3	5·4[3]
Rate per 1,000 living births, 1922.	3·7	5·5	5·1	–	5·2	5·6	5·7	6·9	6·2	5·5[3]
Rate per 1,000 living births, 1921.	3·2	4·3	4·1	–	5·2	4·4	5·7	6·7	4·8	5·1[3]

[1] Yukon and Northwest Territories are not included. [2] Including one mother of 14 years of age.
[3] 1921-1925 totals and rates are for provinces included in the former registration area.

33.—Maternal Mortality in each Province, by Causes of Death, 1927.

NOTE.—For totals in 1927 and previous years, see Table 32.

Causes of death.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada
Accidents of pregnancy—total	1	3	1	29	30	9	13	10	6	102
(a) Abortion	1	1	1	15	8	5	2	4	3	40
(b) Ectopic gestation	–	1	–	9	13	1	7	4	–	35
(c) Others under this title	–	1	–	4	7	3	4	2	2	23
(d) Abortion self-induced	–	–	–	1	2	–	–	–	1	4
Puerperal hæmorrhage	–	6	9	66	49	11	18	12	11	182
Other accidents of childbirth	–	17	12	33	37	8	8	12	5	132
(a) Cæsarean section	–	4	4	2	11	2	1	6	3	33
(b) Difficult labour	–	2	1	10	4	1	5	1	–	24
(c) Other surgical operations and instrumental delivery	–	7	4	6	12	3	1	3	2	38
(d) Uncontrollable vomiting	–	4	2	14	10	2	1	1	–	34
(e) Rupture of uterus in labour, etc	–	–	1	1	–	–	–	1	–	3
Puerperal septicæmia	1	15	12	151	143	23	50	29	24	448
Phlegmasia alba dolens; puerperal embolism, sudden death in puerperium	–	4	2	15	32	7	14	3	3	80
Puerperal albuminuria and convulsions	2	24	22	91	106	12	12	23	17	309
Following childbirth (not otherwise defined)	–	7	4	17	4	2	2	3	2	41
Puerperal diseases of the breast	–	–	–	1	–	–	–	–	–	1

CHAPTER VI.—IMMIGRATION.

While the great majority of French-Canadians can trace their genealogy back to ancestors who left the Old World 200 or 250 years ago or even longer, the great bulk of English-speaking Canadians are comparative newcomers both to Canada and to this continent, though a considerable number of the United Empire Loyalist families had been resident in the old colonies for generations before they moved north to establish English-speaking settlements in Canada. During the middle third of the nineteenth century there was a great English-speaking immigration which settled in the province of Ontario and made it for the first time more populous than the sister province of Quebec, thus bringing about the agitation for representation by population. Thereafter immigration slackened until the dawn of the twentieth century brought another flood of settlers to the newly opened territories of the great Northwest, resulting in an increase of population between the censuses of 1901 and 1911 greater than the combined increase of the three decades from 1871 to 1901.

Section 1.—Statistics of Immigration.

Immigration during the second decade of the twentieth century promised at its commencement to be even greater than during the first. In its first three years no fewer than 1,141,547 persons entered Canada for purposes of settlement. If this rate had been maintained, the population of Canada in 1921 would have been in excess of ten millions instead of being less than nine millions. The war, which commenced on Aug. 4, 1914, dried up the sources of our immigration in Great Britain and Continental Europe, where every able-bodied man was needed for the defence of his country. Immigrant arrivals from the United Kingdom in 1918 numbered only some 3,000, as compared with 150,000 in 1913; from Continental Europe, immigrant arrivals numbered less than 3,000 in 1916, as compared with approximately 135,000 in 1914. Since the war, immigration to the Dominion has never approached that of the pre-war period.

Immigration to Canada, as to other new countries, is generally greatest in "boom" periods, when capital as well as labour is leaving the older countries for the newer in order to secure the more remunerative investments generally to be found in virgin territories where the natural resources are still unexploited. In periods of depression, however, the sending abroad of both capital and labour is diminished, both preferring at such times to endure the ills which they know at home rather than take the risks of a new departure at a distance. This proposition is aptly illustrated by the statistics of Table 1A, which show that during the past 32 years, immigration was at its minimum in the year of deepest depression, 1897, that it steadily increased from that time forward until 1908, that a decline took place in the fiscal year ended Mar. 31, 1909, on account of the short depression of 1908, that thereafter immigration steadily increased till 1913, while the fiscal year ended Mar. 31, 1914, showed a decline due to the depression which occurred in the year preceding the war. In the fiscal years 1915 to 1919, political rather than economic conditions restricted immigration, but with the expansion of business at the end of the war our immigration was more than doubled, while the depression which characterized 1921 and 1922 is reflected in the declining immigration of the fiscal years ended Mar. 31, 1922 and 1923. The improvement in business conditions in 1923 was reflected in an increase of immigration during the fiscal year

ending Mar. 31, 1924, when 148,560 settlers entered Canada as compared with less than half that number in the preceding year. The fiscal years ended Mar. 31, 1925 and 1926, showed declines of 24·4 and 35·3 p.c. respectively from the 1924 figures, but the fiscal years ended 1927 and 1928 have shown distinct improvement in harmony with the general upward trend of business, the latter being by a small margin the best post-war year. In the period from April to December, 1928, immigrants numbered 144,113, as compared with 128,928 in the same period of last year—an increase of 12 p.c.

The number of immigrant settlers in Canada is shown by calendar years from 1867 to 1880 in Table 1, and the number of immigrant arrivals in Canada from the United Kingdom, the United States and other countries, is given by years from 1881 in Table 1A.

1.—Number of Immigrants settling in Canada in each of the calendar years 1867-1880.

(Compiled from the Reports of the Minister of Agriculture.)

Years.	Number.	Years.	Number.
1867	14,666	1874	39,373
1868	12,765	1875	27,382
1869	18,630	1876	25,633
1870	24,706	1877	27,082
1871	27,773	1878	29,807
1872	36,578	1879	40,492
1873	50,050	1880	38,505

1A.—Number of Immigrant Arrivals in Canada from the United Kingdom, the United States and other countries, fiscal years ended 1881-1928.

NOTE.—See table on page 94 for estimate of the movement of population between the censuses of 1901 and 1921.

Fiscal Years.	Immigrant Arrivals from			Total.[4]	Fiscal Years.	Immigrant Arrivals from			Total.
	United Kingdom.	United States.[4]	Other Countries.			United Kingdom.	United States.	Other Countries.	
1881[1]	17,033	21,822	9,136	47,991	1905	65,359	43,543	37,364	146,266
1882[1]	41,283	58,372	12,803	112,458	1906	86,796	57,796	44,472	189,064
1883[1]	45,439	78,508	9,677	133,624	1907[3]	55,791	34,659	34,217	124,667
1884[1]	31,787	65,886	6,151	103,824	1908	120,182	58,312	83,975	262,469
1885[1]	18,591	57,506	3,072	79,169	1909	52,901	59,832	34,175	146,908
1886[1]	23,507	40,650	4,995	69,152	1910	59,790	103,798	45,206	208,794
1887[1]	31,104	41,046	12,376	84,526	1911	123,013	121,451	66,620	311,084
1888[1]	30,852	44,952	12,962	88,766	1912	138,121	133,710	82,406	354,237
1889[1]	19,384	67,896	4,320	91,600	1913	150,542	139,009	112,881	402,432
1890[1]	21,793	50,336	2,938	75,067	1914	142,622	107,530	134,726	384,878
1891[1]	22,042	52,516	7,607	82,165	1915	43,276	59,779	41,734	144,789
1892[1]	22,636	–	8,360	30,996	1916	8,664	36,937	2,936	48,537
1893[1]	20,071	–	9,562	29,633	1917	8,282	61,389	5,703	75,374
1894[1]	16,004	–	4,825	20,829	1918	3,178	71,314	4,582	79,074
1895[1]	14,956	–	3,834	18,790	1919	9,914	40,715	7,073	57,702
1896[1]	12,384	–	4,451	16,835	1920	59,603	49,656	8,077	117,336
1897[1]	11,383	2,412	7,921	21,716	1921	74,262	48,059	26,156	148,477
1898[1]	11,173	9,119	11,608	31,900	1922	39,020	29,345	21,634	89,999
1899[1]	10,660	11,945	21,938	44,543	1923	34,508	22,007	16,372	72,887
1900[2]	5,141	8,543	10,211	23,895	1924	72,919	20,521	55,120	148,560
1901	11,810	17,987	19,352	49,149	1925	53,178	15,818	42,366	111,362
1902	17,259	26,388	23,732	67,379	1926	37,030	18,778	40,256	96,064
1903	41,792	49,473	37,099	128,364	1927	49,784	21,025	73,182	143,991
1904	50,374	45,171	34,786	130,331	1928	50,872	25,007	75,718	151,597

[1] Calendar year. [2] Six months, January to June, inclusive. [3] Nine months ended March 31.

[4] The figures of immigration from the United States for the years 1881 to 1891 do not distinguish between immigrants and non-immigrants. As the U.S.-born population of Canada, according to the census, increased only from 77,753 to 80,915 between 1881 and 1891, it would appear that the number of permanent immigrants from the United States in these years must have been comparatively small. No statistics of immigrants from the U.S. were collected for the years 1892 to 1896.

Sex and Conjugal Condition of Immigrants.—As shown by Table 2, the 151,597 immigrants who came to Canada in the fiscal year ended Mar. 31, 1928, included 100,276 males and 51,321 females, males constituting 66·1 p.c. of the total. In other words, two male immigrants came to Canada for every female, and the discrepancy is considerably greater when persons under 18 are left out of account, there being 82,204 adult male immigrants to 36,978 adult female immigrants. This great disparity of the sexes among our immigrants is a phenomenon of long standing (Table 3), and, taken together with the comparatively small difference between the numbers of the sexes in our total population, goes to indicate that a good deal of our male immigration is of a rather transient character. This conclusion is supported by the fact that 36,181 of the males who immigrated to Canada in 1928 reported themselves as married, as compared with 18,404 of the females. Evidently many of these married immigrants do not bring their wives. It is true they may expect to send for their wives later on, but on the other hand some of the married male immigrants of former years doubtless brought their wives out to join them in 1928.

2.—Sex and Conjugal Condition of Immigrants into Canada, by Age Groups, fiscal year ended Mar. 31, 1928.

Age Groups by Years of Age.	Males.					Females.				
	Single.	Married.	Widowed.	Divorced.	Total.	Single.	Married.	Widowed.	Divorced.	Total.
0– 9	9,976	–	–	–	9,976	9,484	–	–	–	9,484
10–17	8,088	8	–	–	8,096	4,801	58	–	–	4,859
18–29	37,474	13,125	114	44	50,757	13,241	7,932	110	52	21,335
30–49	6,634	20,646	500	192	27,972	2,777	9,081	894	134	12,886
50+	433	2,402	585	55	3,475	193	1,333	1,217	14	2,757
Totals	**62,605**	**36,181**	**1,199**	**291**	**100,276**	**30,496**	**18,404**	**2,221**	**200**	**51,321**

3.—Sex Distribution of Immigrants as Adult Males, Adult Females and Children, fiscal years ended Mar. 31, 1911-1928.

Years.	Adult Males.	Adult Females.	Children under 14.	Total.	Years.	Adult Males.	Adult Females.	Children under 14.	Total.
1911	185,198	71,038	54,848	311,084	1920	40,872	50,006	26,458	117,336
1912	211,266	82,922	60,049	354,237	1921	70,808	49,377	28,292	148,477
1913	238,779	95,168	68,485	402,432	1922	38,597	32,042	19,360	89,999
1914	224,348	94,028	66,502	384,878	1923	33,286	24,756	14,845	72,887
1915	74,143	41,990	28,656	144,789	1924	87,628	38,763	22,169	148,560
1916	23,139	15,478	9,920	48,537	1925	55,478	34,294	21,590	111,362
1917	43,074	19,537	12,763	75,374	1926	46,963	26,611	22,490[1]	96,064
1918	47,497	17,775	13,802	79,074	1927	80,512	33,277	30,202[1]	143,991
1919	25,842	18,594	13,266	57,702	1928	82,204	36,978	32,415[1]	151,597

[1]Under 18.

Racial Origin of Immigrants.—Immigration, which was at a low ebb during the war period, is again increasing and is becoming a chief means of reinforcing our population and filling up the vast waste spaces of Canada. But where any considerable immigration into a democratic country occurs, the racial and linguistic composition of that immigration becomes of paramount importance. Canadians generally prefer that settlers should be of a readily assimilable type, already identified by race or language with one or other of the two great races now inhabiting this country—and thus prepared for the assumption of the duties of democratic Canadian citizenship. Since the French are not to any great extent an emigrating people, this means in practice that the great bulk of the preferable settlers are those who speak the English language—those coming from the United Kingdom or the United States. Next in order of readiness of assimilation are the Scandinavians and the Dutch, who readily learn English and are already

acquainted with the working of free democratic institutions. Settlers from Southern and Eastern Europe, however desirable from the purely economic point of view, are less readily assimilated, and the Canadianizing of the people from these regions who came to Canada in the first fourteen years of this century is a problem both in the agricultural Prairie Provinces and in the cities of the East. Less assimilable still, according to the general opinion of Canadians, are those who come to Canada from the Orient. On the whole the great bulk of Canadian immigration of the past generation has been drawn from the English-speaking countries and from those Continental European countries where the population is ethnically nearly related to the British, though in recent years there has been an increasing immigration of Slavs.

The racial origins of the immigrants who arrived in Canada in the fiscal years ended Mar. 31, 1927 and 1928, are shown in Table 4.

4.—Racial Origins of Immigrants into Canada, arriving via Ocean Ports and from the United States, fiscal years ended Mar. 31, 1927 and 1928.

Racial Origins.	1927.			1928.		
	Via Ocean Ports.	From U.S.	Total.	Via Ocean Ports.	From U.S.	Total.
British Races—						
English	24,890	6,045	30,935	25,991	7,291	33,282
Irish	9,187	2,366	11,553	8,756	2,966	11,722
Scotch	14,296	2,432	16,728	14,341	2,856	17,197
Welsh	1,411	226	1,637	1,784	289	2,073
Total British	49,784	11,069	60,853	50,872	13,402	64,274
European Continental Races—						
Albanian	17	–	17	30	3	33
Austrian	401	129	530	606	153	759
Belgian	2,080	69	2,149	2,171	78	2,249
Bohemian	22	85	107	7	67	74
Bulgarian	126	2	128	249	2	251
Croatian	1,085	2	1,087	902	5	907
Czech	721	7	728	714	13	727
Dalmatian	–	–	–	–	–	–
Dutch	1,674	569	2,243	1,928	537	2,465
Estonian	92	–	92	110	2	112
Finnish	5,180	88	5,268	4,765	112	4,877
French	548	2,499	3,047	868	3,138	4,006
German	12,540	2,682	15,222	12,032	3,190	15,222
Greek	340	45	385	583	72	655
Italian	3,301	165	3,466	3,593	190	3,783
Jewish	4,471	392	4,863	4,296	470	4,766
Jugo-Slav	2,084	18	2,102	1,450	19	1,469
Lettish	60	4	64	77	8	85
Lithuanian	842	6	848	1,037	15	1,052
Magyar	4,863	78	4,941	5,318	103	5,421
Maltese	33	1	34	39	1	40
Mexican	2	2	4	–	1	1
Moravian	36	–	36	33	2	35
Polish	6,505	199	6,704	6,733	254	6,987
Portuguese	14	4	18	7	4	11
Rumanian	292	38	330	237	38	275
Russian	1,127	169	1,296	948	184	1,132
Ruthenian	9,995	66	10,061	10,128	61	10,189
Scandinavian—						
Danish	2,030	225	2,255	3,835	284	4,119
Icelandic	30	32	62	28	18	46
Norwegian	3,384	1,253	4,627	4,327	1,330	5,657
Swedish	2,628	693	3,321	3,134	757	3,891
Serbian	885	8	893	411	15	426
Slovak	4,274	10	4,284	3,714	20	3,734
Spanish	29	20	49	28	17	45
Spanish American	6	2	8	–	–	–
Swiss	568	101	669	614	134	748
Turkish	8	2	10	4	2	6
Other countries	8	–	8	4	–	4
Total European Continental Races	72,301	9,665	81,966	74,960	11,299	86,259

4.—Racial Origins of Immigrants into Canada, arriving via Ocean Ports and from the United States, fiscal years ended Mar. 31, 1927 and 1928—concluded.

Racial Origins.	1927.			1928.		
	Via Ocean Ports.	From U.S.	Total.	Via Ocean Ports.	From U.S.	Total.
Non-European Races—						
American Indian	–	13	13	–	28	28
Arabian	4	–	4	6	1	7
Armenian	65	13	78	44	9	53
Chinese	2	–	2	–	–	–
East Indian races	60	1	61	56	–	56
Japanese	475	–	475	478	–	478
Negro	51	241	292	88	237	325
Persian	6	–	6	4	–	4
Syrian	218	23	241	82	31	113
Total Non-European Races	881	291	1,172	758	306	1,064
Grand Total	**122,966**	**21,025**	**143,991**	**126,590**	**25,007**	**151,597**

Languages of Immigrants.—The languages of immigrants 10 years old and over, arriving *via* ocean ports and from the United States, are shown for the fiscal years ended Mar. 31, 1927 and 1928, in Table 5.

5.—Languages of Immigrants 10 years old and over, arriving via Ocean Ports and from the United States, fiscal years ended Mar. 31, 1927 and 1928.

Languages.	1927.			1928.		
	Via Ocean Ports.	From U.S.	Total.	Via Ocean Ports.	From U.S.	Total.
English	43,190	15,776	58,966	44,061	18,370	62,431
Welsh	1	–	1	–	–	–
French	737	652	1,389	1,084	893	1,977
German	8,160	217	8,377	11,468	279	11,747
Norwegian	3,064	87	3,151	3,826	121	3,947
Swedish	2,699	75	2,774	3,046	118	3,164
Danish	1,868	32	1,900	3,407	63	3,470
Icelandic	20	1	21	22	2	24
Flemish	1,628	21	1,649	1,597	25	1,622
Walloon	–	–	–	–	–	–
Dutch	1,212	25	1,237	1,317	26	1,343
Finnish	4,663	21	4,684	4,436	36	4,472
Estonian	78	–	78	98	–	98
Lettish	42	1	43	47	4	51
Lithuanian	751	3	754	936	9	945
Russian	4,803	64	4,867	1,724	59	1,783
Yiddish	488	11	499	331	10	341
Hebrew	1,513	82	1,595	1,892	96	1,988
Ruthenian, Russniak, Ukrainian	7,473	25	7,498	7,157	25	7,182
Polish	8,652	71	8,723	8,745	89	8,834
Rumanian	320	12	332	294	12	303
Slovenian	218	–	218	212	–	212
Czech (Bohemian)	4,891	7	4,898	4,117	10	4,127
Croat (Serbian)	3,496	5	3,501	2,353	10	2,363
Hungarian (Magyar)	4,729	39	4,768	4,803	58	4,861
Korean	1	–	1	–	–	–
Italian	2,996	63	3,059	3,239	70	3,309
Spanish	28	5	33	18	9	27
Portuguese	4	–	4	3	–	3
Greek	296	23	319	514	43	557
Albanian	11	–	11	24	1	25
Turkish	2	2	4	1	–	1
Bulgarian	140	2	142	301	1	302
Chinese	2	–	2	–	–	–
Japanese	447	–	447	453	–	453
East Indian	44	–	44	49	–	49
Armenian (Aramaic)	66	4	70	38	3	41
Syrian (Arabian)	184	7	191	73	9	82
Total	**108,917**	**17,333**	**126,250**	**111,686**	**20,451**	**132,137**

Nationalities of Immigrants.—In the latest fiscal year ended Mar. 31, 1928, British subjects immigrating to Canada numbered 54,248 and American citizens 21,368, or together about 49·8 p.c. of the total number of immigrants shown in Table 6.

It has previously been pointed out that male immigrants are likely to include a large number of transients, and that the immigration of females is more likely to represent a permanent addition to the population of the country, and the national or racial distribution of that addition. Out of 51,321 females immigrating to Canada in the fiscal year ended Mar. 31, 1928, 22,553 or 44 p.c. were British subjects and 7,840 or 15 p.c. American citizens. Thus nearly 60 p.c. were British or Americans by nationality. The remainder were practically all Continental Europeans, among whom Poles, with 5,996 or 11·6 p.c. of the whole, were the largest single group.

6.—Nationalities of Immigrants arriving via Ocean Ports and from the United States, fiscal years ended Mar. 31, 1927 and 1928.

Nationalities.	1927.			1928.		
	Via Ocean Ports.	From U.S.	Total.	Via Ocean Ports.	From U.S.	Total.
British Subject	50,378	2,239	52,617	51,552	2,696	54,248
U. S. Citizen	95	17,820	17,915	108	21,260	21,368
Mexican	16	4	20	6	5	11
Central American	7	–	7	–	–	–
South American	–	–	–	5	–	5
Argentinian	–	–	–	9	2	11
Brazilian	6	1	7	2	1	3
Chilian	–	–	–	6	–	6
West Indian (not British)	–	–	–	1	1	2
Austrian	794	55	849	1,320	69	1,389
Belgian	2,210	33	2,243	2,317	30	2,347
Bulgarian	106	–	106	253	1	254
Czechoslovakian	6,671	7	6,678	6,025	10	6,035
Finnish	5,842	17	5,859	5,313	27	5,340
French	326	20	346	635	39	674
German	2,282	72	2,354	4,716	113	4,829
Greek	357	7	364	551	10	561
Dutch	1,525	42	1,567	1,593	32	1,625
Hungarian	4,447	21	4,468	4,357	40	4,397
Italian	3,269	44	3,313	3,546	28	3,574
Jugo-Slav	5,386	4	5,390	4,193	12	4,205
Polish	17,920	90	18,010	18,958	109	19,067
Rumanian	2,527	36	2,563	4,173	35	4,208
Russian	8,122	193	8,315	2,932	141	3,073
Danish	2,031	44	2,075	3,831	54	3,885
Icelandic	29	3	32	30	4	34
Norwegian	3,377	118	3,495	4,314	118	4,432
Swedish	1,966	95	2,061	2,552	100	2,652
Swiss	756	33	789	788	40	828
Ukrainian	503	7	510	209	5	214
Albanian	8	1	9	12	2	14
Estonian	83	–	83	133	–	133
Latvian	96	1	97	109	7	116
Lithuanian	1,032	7	1,039	1,411	7	1,418
Portuguese	7	–	7	–	–	–
Spanish	17	2	19	8	1	9
Luxemburger	21	–	21	31	–	31
African (not British)	–	–	–	–	1	1
Arabian	4	1	5	8	–	8
Armenian	27	3	30	5	1	6
Chinese	2	–	2	–	–	–
Japanese	457	–	457	462	–	462
Korean	–	–	–	–	–	–
Persian	15	–	15	3	–	3
Syrian	215	4	219	106	6	112
Turkish	34	1	35	7	–	7
Total	**122,966**	**21,025**	**143,991**	**126,590**	**25,007**	**151,597**

Countries of Birth of Immigrants.—In Table 7 will be found the countries of birth of immigrants into Canada in the last two fiscal years. The figures show that England is the birthplace of more of our immigrants than any other single country, with 25,569 in 1928. Poland came next with 19,448, the United States third with 19,419, Scotland fourth with 14,976 and Ireland fifth with 8,559, these two countries contributing largely out of their comparatively small populations. Czechoslovakians by birth numbered 6,039, Finns 5,347—while the immigration of German-born increased from 2,200 in 1927 to 4,494 in the last fiscal year. The aggregate of settlers born in the four Scandinavian countries was 11,316.

7.—Countries of Birth of Immigrants arriving via Ocean Ports and from the United States, fiscal years ended Mar. 31, 1927 and 1928.

Countries of birth.	1927.			1928.		
	Via Ocean Ports.	From U.S.	Total.	Via Ocean Ports.	From U.S.	Total.
Canada	67	854	921	75	962	1,037
United States	378	15,928	16,306	385	19,034	19,419
England	22,949	1,211	24,160	24,054	1,515	25,569
Ireland	8,775	270	9,045	8,232	327	8,559
Scotland	14,340	651	14,991	14,253	723	14,976
Wales	1,771	46	1,817	2,220	56	2,276
Lesser British Isles	142	10	152	153	5	158
Newfoundland	958	34	992	987	67	1,054
St. Pierre and Miquelon	–	2	2	1	–	1
Mexico	24	6	30	10	9	19
Central America	4	1	5	–	1	1
Honduras (Br.)	–	1	1	2	–	2
Other South America	8	3	11	13	4	17
Argentina	16	3	19	23	6	29
Brazil	17	1	18	14	3	17
Chile	2	–	2	14	–	14
Guiana, British	17	1	18	15	2	17
West Indies (Br.)	116	28	144	147	40	187
West Indies (not Br.)	7	1	8	5	6	11
Austria	770	135	905	1,306	175	1,481
Belgium	2,204	45	2,249	2,286	52	2,338
Bulgaria	94	3	97	214	2	216
Czechoslovakia	6,659	26	6,685	6,014	25	6,039
Finland	5,800	38	5,838	5,287	60	5,347
France	358	42	400	724	63	787
Germany	2,012	188	2,200	4,270	224	4,494
Greece	358	31	389	588	47	635
Holland	1,485	54	1,539	1,551	51	1,602
Hungary	4,467	42	4,509	4,320	81	4,401
Italy	3,258	85	3,343	3,573	92	3,665
Jugo-Slavia	5,373	6	5,379	4,189	18	4,207
Poland	18,120	112	18,232	19,300	148	19,448
Rumania	2,555	49	2,604	4,192	58	4,250
Russia	6,602	333	6,935	2,264	299	2,563
Denmark	2,028	74	2,102	3,831	101	3,932
Iceland	31	7	38	28	3	31
Norway	3,355	284	3,639	4,258	291	4,549
Sweden	1,921	256	2,177	2,563	241	2,804
Switzerland	759	37	796	793	50	843
Ukraine	2,186	7	2,193	977	2	979
Albania	10	–	10	28	2	30
Estonia	84	–	84	129	1	130
Latvia	109	4	113	131	9	140
Lithuania	1,027	7	1,034	1,407	13	1,420
Malta	38	1	39	51	2	53
Portugal	5	–	5	3	–	3
Spain	22	4	26	18	2	20
Other European Countries including Luxemburg	25	2	27	49	3	52
Australia	187	23	210	259	34	293
New Zealand	97	11	108	163	5	168
Africa (Br.)	138	6	144	121	7	128
Africa (not Br.)	13	6	19	16	4	20
Asia	35	3	38	20	8	28
Armenia	15	–	15	7	3	10
China	117	6	123	141	12	153
India (Br.)	199	10	209	240	23	263

7.—Countries of Birth of Immigrants arriving via Ocean Ports and from the United States, fiscal years ended Mar. 31, 1927 and 1928—concluded.

Countries of birth.	1927.			1928.		
	Via Ocean Ports.	From U.S.	Total.	Via Ocean Ports.	From U.S.	Total.
Japan	492	1	493	497	4	501
Korea	6	–	6	2	–	2
Persia	13	–	13	4	–	4
Syria	214	12	226	81	12	93
Turkey	75	15	90	52	10	62
Atlantic Ocean Islands (Br.)	34	1	35	27	4	31
Atlantic Ocean Islands (not Br.)	25	8	33	13	6	19
Total	**122,966**	**21,025**	**143,991**	**126,590**	**25,007**	**151,597**

Ports of Arrival of Immigrants.—Throughout the greater part of our history, Quebec has been the port at which the greatest number of our immigrants have landed. In the past few years, however, there has been a great increase in the immigrants arriving at the port of Halifax, those entering at this port in 1928 being six times as many as in 1922. This would appear to be due to increasing immigration in the early spring months before the St. Lawrence is open to traffic. Figures for recent years are given in Table 8.

8.—Total Immigration to Canada, by Chief Ports of Arrival, fiscal years ended Mar. 31, 1922-1928.

Ports.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Quebec	40,730	31,717	71,290	59,572	40,963	63,792	64,392
Saint John	8,318	8,580	23,533	9,501	12,245	16,889	14,176
Halifax	7,119	5,039	19,279	21,965	20,490	37,677	43,072
North Sydney	318[1]	1,426	4,884	1,085	435	712	832
Sydney	–	69	113	72	5	89	7
Montreal	–	171	437	200	144	192	272
Vancouver	1,448	797	1,130	1,144	1,333	1,220	1,386
Victoria	1,020	614	633	459	361	513	475
New York	1,543	2,430	6,157	1,452	1,163	1,402	1,641
Boston	158	37	249	51	26	47	218
Other ports	–	–	334	43	121	433	119
From the United States	29,345	22,007	20,521	15,818	18,778	21,025	25,007
Total	**89,999**	**72,887**	**148,560**	**111,362**	**96,064**	**143,991**	**151,597**

[1] Includes Sydney.

Destinations of Immigrant Arrivals.—The destinations of the immigrant arrivals in Canada are given for the period from 1901 to 1928 in Table 9, which may be compared with the census tables on pages 89 and 90 showing the increase of population in the decades between 1901 and 1921.

While immigration to the Maritime Provinces during the period was comparatively small, totalling 195,968, that to Quebec and Ontario was very large. Since 1905 Ontario has received a larger number of immigrants annually than any other province of the Dominion, while Manitoba is usually second in this respect. The immigration to Eastern Canada (Maritime Provinces, Quebec and Ontario) has almost equalled that to Western Canada (Manitoba, Saskatchewan, Alberta and British Columbia) in the 28-year period.

9.—Destinations of Immigrants into Canada, by Provinces, fiscal years ended June 30, 1901-06, and Mar. 31, 1907-28.

Fiscal years.	Maritime Provinces.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia and Yukon Terr'y.	Not shown.	Totals.
1901	2,144	10,216	6,208	11,254	14,160		2,600	2,567	49,149
1902	2,312	8,817	9,798	17,422	22,199		3,483	3,348	67,379
1903	5,821	17,040	14,854	39,535	43,898		5,378	1,838	128,364
1904	5,448	20,222	21,266	34,911	40,397		6,994	1,093	130,331
1905	4,128	23,666	35,811	35,387	39,289		6,008	1,977	146,266
1906	6,381	25,212	52,746	35,648	28,728	26,177	12,406	1,766	189,064
1907 (9 mos.)	6,510	18,319	32,654	20,273	15,307	17,559	13,650	395	124,667
1908	10,360	44,157	75,133	39,789	30,590	31,477	30,768	195	262,469
1909	6,517	19,733	29,265	19,702	22,146	27,651	21,862	32	146,908
1910	10,644	28,524	46,129	21,049	29,218	42,509	30,721	–	208,794
1911	13,236	42,914	80,035	34,653	40,763	44,782	54,701	–	311,084
1912	15,973	50,602	100,227	43,477	46,158	45,957	51,843	–	354,237
1913	19,806	64,835	122,798	43,813	45,147	48,073	57,960	–	402,432
1914	16,730	80,368	123,792	41,640	40,999	43,741	37,608	–	384,878
1915	11,104	31,053	44,873	13,196	16,173	18,263	10,127	–	144,789
1916	5,981	8,274	14,743	3,487	6,001	7,215	2,836	–	48,537
1917	5,710	10,930	26,078	5,247	9,874	12,418	5,117	–	75,374
1918	5,247	9,059	23,754	6,252	12,382	16,821	5,559	–	79,074
1919	3,860	6,772	13,826	4,862	8,552	11,640	8,190	–	57,702
1920	5,554	13,078	39,344	11,387	14,287	20,000	13,686	–	117,336
1921	6,353	21,100	62,572	12,649	13,392	17,781	14,630	–	148,477
1922	3,222	13,724	34,590	8,904	9,894	11,825	7,840	–	89,999
1923	3,298	9,343	30,444	6,037	8,186	8,798	6,781	–	72,887
1924	7,940	19,979	65,280	21,451	13,200	10,430	10,280	–	148,560
1925	3,153	16,279	45,912	11,772	14,041	10,952	9,253	–	111,362
1926	1,670	11,367	29,293	19,079	13,816	12,540	8,212	87	96,064
1927	3,125	16,642	40,604	36,739	20,085	16,367	10,410	16	143,991[1]
1928	3,741	18,469	45,052	43,596	15,331	15,473	9,891	5	151,597[1]
Total	195,968	660,694	1,267,081	643,211	1,152,662		458,794	13,319	4,391,771[1]

[1] Includes immigrants destined for the Northwest Territories: 3 in 1927 and 39 in 1928.

Occupations of Immigrant Arrivals.—As stated below in the paragraphs dealing with immigration policy, the settlers most universally acceptable to Canadians are those who settle on the land or those females who enter domestic service. In Table **10** will be found statistics of the occupations of immigrant arrivals in Canada during the fiscal years ended Mar. 31, 1927 and 1928.

10.—Occupations and Destinations of Immigrants arriving in Canada in the fiscal years ended Mar. 31, 1927 and 1928.

Description.	1927.			1928.		
	Via Ocean Ports.	From the United States.	Totals.	Via Ocean Ports.	From the United States.	Totals.
Farmers and farm labourers—						
Men	55,650	5,233	60,883	56,409	5,318	61,727
Women	5,460	1,203	6,663	5,686	1,276	6,962
Children	12,717	1,691	14,408	12,860	1,767	14,627
General labourers—						
Men	4,862	1,323	6,185	4,364	1,784	6,148
Women	847	224	1,071	815	260	1,075
Children	1,454	205	1,659	1,402	279	1,681
Mechanics—						
Men	4,617	1,774	6,391	4,366	2,305	6,671
Women	1,562	398	1,960	1,397	546	1,943
Children	1,184	303	1,487	920	409	1,329
Clerks, traders, etc.—						
Men	2,105	978	3,083	2,225	1,551	3,776
Women	1,064	362	1,426	988	588	1,576
Children	663	186	849	573	291	864
Miners—						
Men	965	151	1,116	541	157	698
Women	104	10	114	102	17	119
Children	127	7	134	139	11	150

10.—Occupations and Destinations of Immigrants arriving in Canada in the fiscal years ended Mar. 31, 1927 and 1928—concluded.

Description.	1927.			1928.		
	Via Ocean Ports.	From the United States.	Totals.	Via Ocean Ports.	From the United States.	Totals.
Domestics—						
Women[1]	13,019	538	13,557	14,798	516	15,314
Not classified—						
Men	1,564	1,240	2,854	1,603	1,581	3,184
Women	7,592	2,445	10,037	8,570	2,899	11,469
Children	7,410	2,704	10,114	8,832	3,452	12,284
Totals—						
Men	69,763	10,749	80,512	69,508	12,696	82,204
Women[1]	29,648	5,180	34,828	32,356	6,102	38,458
Children	23,555	5,096	28,651	24,726	6,209	30,935
Totals	**122,966**	**21,025**	**143,991**	**126,590**	**25,007**	**151,597**
Destination—						
Maritime Provinces	2,738	387	3,125	3,352	389	3,741
Quebec	13,735	2,907	16,642	14,635	3,834	18,469
Ontario	34,769	5,835	40,604	35,990	9,062	45,052
Manitoba	35,469	1,290	36,739	42,432	1,164	43,596
Saskatchewan	16,423	3,662	20,085	11,836	3,495	15,331
Alberta	11,780	4,587	16,367	10,895	4,578	15,473
British Columbia	8,060	2,316	10,376	7,426	2,465	9,891
Yukon and N. W. T	4	30	34	23	16	39
Not given	8	11	19	1	4	5

[1]Includes domestics under 18 years of age.

Prohibited Immigrants.—The following is a summary of the classes whose admission to Canada is prohibited under the existing regulations. These regulations, however, do not apply to Canadian citizens or persons having Canadian domicile:—

(1) Imbeciles, feebleminded persons, epileptics, insane persons, persons of constitutional psychopathic inferiority, persons suffering from chronic alcoholism and those mentally defective to such a degree as to affect their ability to earn a living.

(2) Persons afflicted with tuberculosis or with any loathsome, contagious or infectious disease or a disease which may be dangerous to public health; immigrants who are dumb, blind or otherwise physically defective.

(3) Prostitutes and women and girls coming to Canada for any immoral purpose, pimps, procurers and persons who have been convicted of any crime involving moral turpitude.

(4) Professional beggars or vagrants, charity-aided immigrants and persons who are likely to become public charges.

(5) Anarchists, persons who disbelieve in or are opposed to organized government or who belong to any organization teaching disbelief in or opposition to organized government, persons who have been guilty of espionage or high treason and persons who have been deported from Canada.

(6) Persons over fifteen years of age unable to read. The literacy test, however, does not apply to a father or grandfather over fifty-five years of age, or to a wife, mother, grandmother or unmarried daughter or widowed daughter.

The Immigration Act provides for the rejection and deportation of immigrants belonging to the prohibited classes, and also for the deportation of those who become undesirables within five years after legal entry.

The operation of the above regulations is illustrated in Tables **11** and **12**, which give the number of immigrants rejected or deported after admission, the causes of such rejection or deportation, and the nationalities of those deported, for each of the

ten fiscal years ended 1919 to 1928, together with the totals for the 26 fiscal years from 1903 to 1928.

11.—Rejections of Immigrants upon arrival at Ocean Ports, by Principal Causes and Nationalities, fiscal years ended 1903-1928.

Items.	1903 to 1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	Totals.
By Causes—												
Medical causes	4,955	19	21	99	60	37	130	83	40	95	104	5,643
Civil causes	7,534	51	641	854	1,023	595	862	948	226	594	215	13,543
Totals	**12,489**	**70**	**662**	**953**	**1,083**	**632**	**992**	**1,031**	**266**	**689**	**319**	**19,186**
By Nationalities—												
British	1,655	11	108	193	153	98	187	199	109	209	150	3,072
American	270	9	8	11	7	4	6	11	–	5	2	333
Other countries	10,564	50	546	749	923	530	799	821	157	475	167	15,781

12.—Deportations of Immigrants after Admission, by Principal Causes and by Nationalities, fiscal years ended 1903-1928.

Items.	1903 to 1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	Totals.
By Causes—												
Medical causes	3,588	70	123	133	313	282	649	420	410	470	519	6,977
Public charges	5,244	103	158	236	950	679	775	543	506	354	430	9,978
Criminality	2,743	236	334	586	630	543	511	520	453	447	426	7,429
Other civil causes	1,033	35	22	52	105	76	93	58	189	149	257	2,069
Accompanying deported persons	242	10	18	37	48	52	78	145	158	165	254	1,207
Totals	**12,850**	**454**	**655**	**1,044**	**2,046**	**1,632**	**2,106**	**1,686**	**1,716**	**1,585**	**1,886**	**27,660**
By Nationalities—												
British	7,011	99	184	295	1,107	888	1,377	985	899	808	1,047	14,700
American	3,100	279	392	616	725	520	417	321	330	351	297	7,348
Other countries	2,739	76	79	133	214	224	312	380	487	426	542	5,612

Juvenile Immigrants.—Among the most generally acceptable immigrant arrivals are the juveniles of both sexes who are trained by highly accredited British organizations for Canadian life before coming to Canada, the boys being taught the lighter branches of farm work, while the girls are instructed in domestic occupations. On arrival in Canada the boys are placed on farms, while the girls are placed either in town or country, but the organizations remain the legal guardians of the children until they have reached maturity, and in addition the children are subject to efficient and recurrent Government inspection until they reach their nineteenth year. This inspection is under the control of the Supervisor of Juvenile Immigration.

Under the British Empire Settlement Act, the term "children" is now applied to all immigrants up to 17 years of age, migrating to Canada under the auspices of recognized organizations. These organizations have profited by the Overseas Settlement Agreement, which provides free transportation for the boys and girls from 14 to 17 years of age migrating to Canada under the auspices of approved societies and proposing to work on the land or as domestic workers. Juvenile immigrants of this type included 1,866 boys and 204 girls in the fiscal year ended Mar. 31, 1928.

The number of juveniles immigrated to Canada in each year since 1901, together with the number of applications for their services, is given in Table **13**, from which it may be seen that the applications in recent years were from 6 to 15 times the number of young persons immigrated.

13.—Juvenile Immigrants and Applications for their Services, 1901-1928.

NOTE.—Juvenile immigrants are included in the total number of immigrants recorded elsewhere.

Fiscal Years.	Juvenile Immigrants.	Applications for their services.	Fiscal Years.	Juvenile Immigrants.	Applications for their services.
	No.	No.		No.	No.
1901	977	5,783	1916	821	31,725
1902	1,540	8,587	1917	251	28,990
1903	1,979	14,219	1918	–	17,916
1904	2,212	16,573	1919	–	11,718
1905	2,814	17,833	1920	155	10,235
1906	3,258	19,374	1921	1,426	19,841
1907[1]	1,455	15,800	1922	1,211	15,371
1908	2,375	17,239	1923	1,184	17,005
1909	2,424	15,417	1924	2,080	22,193
1910	2,422	18,477	1925	2,000	13,971
1911	2,524	21,768	1926	1,862	13,988
1912	2,689	31,040	1927	1,741	12,446
1913	2,642	33,493	1928	2,070	12,459
1914	2,318	32,417			
1915	1,899	30,854	**Total**	**48,230**	**526,732**

[1] Nine months.

Oriental Immigration.—The immigration to Canada of labourers belonging to the Asiatic races, able because of their low standard of living to underbid the white man in selling his labour, is fundamentally an economic rather than a racial problem, affecting most of all those portions of the country which are nearest to the East and the classes which feel their economic position threatened. A record of Oriental immigration since the commencement of the century is given in Table **14.**

14.—Record of Oriental Immigration, 1901-1928.

Fiscal Years.	Chinese.	Japanese.	East Indians.	Total.	Fiscal Years.	Chinese.	Japanese.	East Indians.	Total.
	No.	No.	No.	No.		No.	No.	No.	No.
1901	2,544	6	–	2,550	1916	89	401	1	491
1902	3,587	–	–	3,587	1917	393	648	–	1,041
1903	5,329	–	–	5,329	1918	769	883	–	1,652
1904	4,847	–	–	4,847	1919	4,333	1,178	–	5,511
1905	77	354	45	476	1920	544	711	–	1,255
1906	168	1,922	387	2,477	1921	2,435	532	10	2,977
1907[1]	291	2,042	2,124	4,457	1922	1,746	471	13	2,230
1908	2,234	7,601	2,623	12,458	1923	711	369	21	1,101
1909	2,106	495	6	2,607	1924	674	448	40	1,162
1910	2,302	271	10	2,583	1925	–	501	46	547
1911	5,320	437	5	5,762	1926	–	421	62	483
1912	6,581	765	3	7,349	1927	2	475	60	537
1913	7,445	724	5	8,174	1928	3	478	56	537
1914	5,512	856	88	6,456					
1915	1,258	592	–	1,850	**Total**	**61,300**	**23,581**	**5,605**	**90,486**

[1] Nine months.

Chinese Immigration.—Oriental immigration to the Pacific Coast of North America appears to have commenced with the coming of Chinese immigrants about the time of the discovery of gold in California in 1849, and British Columbia appears to have received its first Chinese immigrants some time before 1870. The original occupation of these immigrants was as laundrymen and domestic servants. As early as 1872 Chinese were employed in the coal mines of the province and the Legislature was already considering the imposition of a poll tax on Chinese, the same proposition coming up later in the Dominion Parliament with the design of preventing the employment of Chinese labour in railway construction. A Royal Commission was appointed by the Dominion Government in 1884 to investigate the question of Chinese immigration and this Commission recommended the imposition of a head tax of $10 upon Chinese entering Canada, together with registration and special legislation regulating Chinese domestic servants. This led to the

passage of legislation in 1885 (48-49 Vict., c. 71), providing that thereafter Chinese of the labouring class should be required, as a condition of entering into Canada, to pay a head tax of $50 each. On Jan. 1, 1901 (63-64 Vict., c. 32) this tax was increased to $100, and on Jan. 1, 1904 (3 Edw. VII, c. 8), after another Royal Commission had reported upon this matter, the head tax was further increased to $500. This tax was paid by all Chinese immigrants except consular officers, merchants and clergymen and their families, tourists, men of science, students and teachers. In spite of this restrictive legislation, the number of Chinese enumerated at the censuses has risen from 4,383 in 1881 to 17,312 in 1901, to 27,774 in 1911 and to 39,587 in 1921. Of this latter number, 37,163 are males and only 2,424 females. Some 60 p.c. of all the Chinese in Canada, *viz.*, 23,533, are residents of British Columbia.

15.—Record of Chinese Immigration, fiscal years ended 1886-1928.

Fiscal Years.	Paying tax.	Exempt from tax.	Percentage of total arrivals admitted exempt from tax.	Registrations for leave.	Total Revenue.
	No.	No.	p.c.	No.	$
1886-91	4,590	222	4·61	7,041	239,664
1892	3,276	6	0·18	2,168	166,5[illegible]
1893	2,244	14	0·62	1,277	113,491
1894	2,087	22	1·04	666	105,021
1895	1,440	22	1·50	473	72,47[illegible]
1896	1,762	24	1·34	697	88,80[illegible]
1897	2,447	24	0·97	768	123,11[illegible]
1898	2,175	17	0·78	802	109,75[illegible]
1899	4,385	17	0·39	859	220,31[illegible]
1900	4,231	26	0·61	1,102	215,10[illegible]
1901	2,518	26	1·02	1,204	178,70[illegible]
1902	3,525	62	1·73	1,922	364,97[illegible]
1903	5,245	84	1·58	2,044	526,74[illegible]
1904	4,719	128	2·64	1,920	474,42[illegible]
1905	8	69	89·61	2,080	6,08[illegible]
1906	22	146	86·90	2,421	13,52[illegible]
1907[1]	91	200	68·73	2,594	48,09[illegible]
1908	1,482	752	33·67	3,535	746,55[illegible]
1909	1,411	695	33·00	3,731	713,13[illegible]
1910	1,614	688	29·89	4,002	813,00[illegible]
1911	4,515	805	15·13	3,956	2,262,05[illegible]
1912	6,083	498	7·57	4,322	3,049,72[illegible]
1913	7,078	367	4·93	3,742	3,549,24[illegible]
1914	5,274	238	4·32	3,450	2,644,59[illegible]
1915	1,155	103	8·19	4,373	588,12[illegible]
1916	20	69	77·53	4,064	19,3[illegible]
1917	272	121	30·78	3,312	140,4[illegible]
1918	650	119	15·47	2,907	336,7[illegible]
1919	4,066	267	6·16	3,244	2,069,6[illegible]
1920	363	181	33·27	5,529	538,4[illegible]
1921	885	1,550	63·66	6,807	474,3[illegible]
1922	1,459	287	16·44	7,532	743,0[illegible]
1923	652	59	8·30	6,682	434,7[illegible]
1924	625	51	7·54	5,661	334,0[illegible]
1925	–	–	–	5,992	308.[illegible]
1926	–	–	–	3,947	25,[illegible]
1927	–	2	100·00	5,987	14,3[illegible]
1928	2	1	33·33	5,087	5,[illegible]
Total	82,371	7,962	8·81	128,593	22,899,0[illegible]

[1] Nine months.

The Chinese Immigration Act of 1923 (13-14 Geo. V, c. 38), restricts the entr[illegible] to or landing in Canada of persons of Chinese origin or descent, irrespective [illegible] allegiance or citizenship, other than Government representatives, Chinese childr[illegible] born in Canada, merchants (defined by what regulations the Minister of Immigr[illegible] tion and Colonization may prescribe) and students—the last two classes to posse[illegible] passports issued by the Government of China and endorsed by a Canadian imm[illegible]

gration officer. As a result, no Chinese were admitted to the country as immigrants in the fiscal years ended 1925 and 1926; two are shown by the above table to have been admitted in 1927 and three in 1928.

Japanese Immigrants.—Japanese immigration to Canada commenced about 1896, and a total of some 12,000 came in between then and 1900, but at the census of 1901 the total number enumerated as domiciled in the Dominion was only 4,738; in 1911, 9,021; in 1921, 15,868, 15,006 of these latter being domiciled in British Columbia. The immigration of Japanese was especially active in the fiscal years 1906 to 1908, in which three years a total of 11,565 entered the country. In the latter year an agreement was made with the Japanese Government, under which the latter undertook to limit the number of passports issued to Japanese immigrants to Canada, while the Canadian Government agreed to admit those possessing such passports. The statistics of Table **14** show that in this way Japanese immigration to Canada has been effectively restricted.

East Indian Immigrants.—East Indian immigration to Canada, like Japanese, is shown by the statistics of Table **14** to have been negligible down to 1907, when no fewer than 2,124 East Indian immigrants arrived. However, as a consequence of the operation of section 38 of the Immigration Act of 1910, East Indian immigration has since that date been comparatively small. A resolution of the Imperial War Conference of 1918 declared that "it is the inherent function of the Governments of the several communities of the British Commonwealth that each should enjoy complete control of the composition of its own population by means of restriction on immigration from any of the other communities". However, it was recommended that East Indians already permanently domiciled in other British countries should be allowed to bring in their wives and minor children, a recommendation which was confirmed, so far as Canada was concerned, by Order in Council of Mar. 26, 1919. However, in the eight fiscal years ended Mar. 31, 1921 to 1928, only 10, 13, 21, 40, 46, 62, 60 and 56 East Indian immigrants respectively were admitted.

Expenditure on Immigration.—The sums expended by the Dominion Government on immigration in each of the fiscal years ended 1868 to 1928 inclusive, as stated in the Public Accounts issued annually by the Department of Finance, are shown in Table **16.**

16.—Expenditure on Immigration in the fiscal years ended 1868-1928.

(Compiled from the Public Accounts.)

Years.	$	Years.	$	Years.	$	Years.	$
1868	36,050	1883	373,958	1898	261,195	1913	1,427,112
1869	26,952	1884	511,209	1899	255,879	1914	1,893,298
1870	55,966	1885	423,861	1900	434,563	1915	1,658,182
1871	54,004	1886	257,355	1901	444,730	1916	1,307,480
1872	109,954	1887	341,236	1902	494,842	1917	1,181,991
1873	265,718	1888	244,789	1903	642,914	1918	1,211,954
1874	291,297	1889	202,499	1904	744,788	1919	1,112,079
1875	278,777	1890	110,092	1905	972,357	1920	1,388,185
1876	338,179	1891	181,045	1906	842,668	1921	1,688,961
1877	309,353	1892	177,605	1907[1]	611,201	1922	2,052,371
1878	154,351	1893	180,677	1908	1,074,697	1923	1,987,745
1879	186,403	1894	202,235	1909	979,326	1924	2,417,374[2]
1880	161,213	1895	195,653	1910	960,676	1925	2,823,920[2]
1881	214,251	1896	120,199	1911	1,079,130	1926	2,328,931[2]
1882	215,339	1897	127,438	1912	1,365,000	1927	2,338,992
						1928	2,704,698
						Total	**47,034,897**

[1] Nine months.

[2] Includes expenditure on British Empire Exhibition:—1924, $649,882; 1925, $599,797; 1926, $70,661.

Recent Emigration from Canada.—An important factor tending to offset our immigration activities was a movement from Canada to the United States which attained considerable proportions at certain periods during recent years. The quota system of immigration regulation, applied by the United States Government against European immigrants but not against Canadians, had the effect of limiting immigration to the United States and as a consequence offering especially attractive inducements to Canadians to enter the United States. No record of this movement had ever been kept by the Canadian Government, and, while the seriousness of the movement was recognized, its magnitude, as indicated by the United States returns, was questioned, on the ground that these returns did not make allowance for Canadians returning to Canada after a more or less extended period of residence in the United States. The Canadian Department of Immigration and Colonization was convinced that a very considerable return movement was taking place, but until 1924 no attempt was made to ascertain the exact magnitude of that movement. In that year immigration officers were instructed to take note of Canadians returning to Canada from the United States after an absence of more than six months in that country; the results are tabulated in Table 17.

Another circumstance which has in the past occasioned a considerable movement from Canada to the United States has no doubt been the practice of Europeans entering Canada, apparently as *bona fide* immigrants, but really with the intention of entering the United States as soon as the quota restrictions would permit them to do so. The recent tightening up of the American regulations concerning persons entering the United States from Canada and the active co-operation of the Canadian Department of Immigration and Colonization in discouraging this traffic, seem likely to reduce a movement which is already distinctly on the wane.

Table 17 shows the number of Canadians returning from the United States from April 1, 1924, to December, 1928.

17.—Canadians returned from the United States, fiscal years ended Mar. 31, 1925, 1928, and April-December, 1928.

Fiscal Years ended Mar. 31.	Canadian-born Citizens.	British Subjects who had acquired Canadian Domicile.	Naturalized Canadian Citizens.	Total.
1925	36,473	4,487	2,815	43,7
1926	40,246	4,102	2,873	47,2
1927	49,255	5,326	2,376	56,9
1928	35,137	3,280	1,470	39,8
1928—April-December	24,890	2,225	840	27,9

Non-immigrants entering Canada.—In Table 18 will be found the numb of returning Canadians and other non-immigrants who entered Canada throug ocean ports in the two latest fiscal years ended Mar. 31, 1927 and 1928. The grat total of such persons was 48,560 in 1928.

18.—Returning Canadians and Other Non-immigrants entering Canada via Ocean Ports, by Class of Travel, fiscal years ended Mar. 31, 1927 and 1928.

Description.	1927.			1928.		
	Saloon.	Cabin Class.	Third Class.	Saloon.	Cabin Class.	Third Class.
Canadian-born returning.....	3,956	6,807	5,454	2,014	5,887	5,012
British-born returning.....	769	5,054	11,226	391	3,891	12,636
British naturalized returning	558	1,168	1,693	224	886	1,619
Alien nationals returning.....	93	536	1,772	71	344	1,544
Non-immigrant tourist.....	1,908	5,086	2,351	1,297	4,720	3,676
" professional.	7	19	6	1	–	–
" student.....	43	36	11	16	29	21
" theatrical...	1	45	17	–	39	26
" in transit....	1,486	1,359	332	1,631	1,301	294
Totals.....	**8,821**	**20,110**	**22,862**	**5,695**	**17,137**	**25,728**

Section 2.—Immigration Policy.

The crest of the wave of immigration into Canada was in the years preceding the Great War, when the total immigration reached 402,432 in the fiscal year ended Mar. 31, 1913. This movement was largely due to the policy of giving free government lands to those who would undertake to live upon them and perform certain residence and development duties and to the opportunities for all classes of labour in railroad and other construction work. The homestead entries for the period of the fiscal years 1901 to 1914, inclusive, numbered 434,862, and represented the enormous area of more than 70,000,000 acres of fertile land in the provinces of Manitoba, Saskatchewan, Alberta and certain portions of British Columbia, granted free to settlers as an inducement toward the development of the country.

The war interrupted the flow of immigration, and with the return of peace new conditions called for new policies. First and most pressing of these was the problem of re-absorbing into civil life the hundreds of thousands of returning soldiers. The realization that Canada had been somewhat optimistic in its railway undertakings had also been borne in upon the public, and immigration policies had to be so shaped as to avoid the necessity of further railway construction on a large scale at any early date. This meant that free government lands, of which millions of acres were still available, but mostly in districts remote from railway services, ceased to be a magnet. With the ordinary channels of employment filled with returning soldiers, and free government lands located at such distances from railways that settlement upon them could not be generally encouraged, the Department of Immigration and Colonization found it necessary to restrict its activities almost exclusively to those who were in a position to buy land, or were prepared to take farm employment, and to household workers. This strictly selective policy, combined with certain restrictive regulations which were a natural aftermath of the war, and other conditions such as the high cost of transportation and the depreciation of European currencies, resulted in a relatively small movement of immigrants to Canada in comparison with the great numbers admitted during the years from 1910 to 1914.

During 1923, on account of the return of prosperity and the absorption of surplus labour, it became increasingly evident that popular opinion in Canada favoured a resumption of immigration activities on a considerable scale and the Government announced its intention of encouraging the migration of the largest

possible number of those classes of settlers which Canada could absorb. This elicited favourable comment in the British press, which welcomed a resumption of Canadian immigration activities. While there are would-be immigrants into Canada who are not suited for the Dominion owing to physical, moral or industrial unfitness or because they belong to races that cannot be assimilated without social or economic loss to Canada, there are in Great Britain and Continental Europe tens of thousands of skilled workers and unskilled workers (not agriculturists) who would be an asset to Canada if steady employment could be found for them.

Recognition of the fact that there are many families in Great Britain and Ireland who would make good settlers in Canada but are hampered by the high cost of transportation, resulted in an arrangement being entered into with the British Government, under which assistance in bearing the transportation expenses of selected immigrants, by means of reduced passage in the case of adults and free passage in the case of children under 17, was provided. The agreement provided assistance to four classes of British immigrants, *viz.*:—(a) married agriculturists and their families; (b) single farm labourers; (c) houseworkers; (d) juvenile immigrants. The assistance to juvenile immigrants (class "d") was limited to those between 14 and 17 years of age. All assistance was for third class ocean and colonist rail transportation, repayable without interest. One feature of the Empire Settlement Agreement provided for nomination in Canada, so that any British subject residing in Canada may nominate a relative, friend or acquaintance who on arrival will be engaged in farming or in housework. Provision was also made for nomination by description where British help was wanted and the nominator was not acquainted with a suitable migrant.

The first assisted passage agreement was made in April, 1923. Others followed in 1924 and 1925, continuing the principle of loan to the adult, where necessary, of the entire cost of transportation. On Jan. 1, 1926, a new passage agreement came into effect, under which the cost to the adult migrant was reduced to a point where the majority could and did pay the rate. This Empire Settlement Agreement provided ocean passage, third class, from any port in the United Kingdom to Halifax, Saint John or Quebec for £3. The Empire Settlement rate to Toronto was £4:10; Winnipeg, £5:10; Regina, Moose Jaw or Saskatoon, £6; Calgary or Edmonton, £6:10, and Vancouver, £9. In the autumn of 1926 the £3 ocean rate was reduced to £2, with a corresponding reduction of £1 in the rate to the above mentioned destinations. The balance of the fare is made up of contributions and rebates by the British Government, the Canadian Government and the steamship companies. Single farm labourers are required to pay their own transportation at the reduced rates, there being no loans for this class. Houseworkers are required to provide a minimum of £2 and may be loaned the balance where necessary. The adults of agricultural families may be given loans where necessary, while children under 17 belonging to agricultural families receive free passage. Changes are made from time to time in the Assisted Passage Scheme and those interested in knowing exactly what passage assistance is given at any particular date, should consult the Department of Immigration and Colonization.

Provision was also made by arrangement with the British Government for assisting 3,000 selected British families to locate on farms in Canada, in addition to the passage assistance already outlined. This was made possible by a loan of £300 per family advanced by the British Government, and repayable over a period of 25 years with interest at 5 p.c. per annum. The families must be personally selected by the Canadian authorities and approved by the British authorities.

Settlement is made under the direction of the Land Settlement Branch on farms owned by the Government. Payment of the purchase price of the farm is extended over 25 years with interest at 5 p.c. per annum. The agreement contemplated the settlement in Canada of 3,000 British families in three years, and up to the end of 1928 some 2,669 families, comprising 14,946 persons, had actually been settled.

During 1927 an agreement was completed between the British Government, the Canadian Government, and the Government of New Brunswick, which provides for the placement of 500 British settlers and their families on improved farms in New Brunswick during the period from Mar. 1, 1928, to Mar. 31, 1934. The plan follows the general scheme of the 3,000 British families settlement plan which has already met with so much success, except that in this case the Canadian co-operation will be given by the Province and the Dominion working together, instead of exclusively by the Dominion Government. The Dominion Government, through its Department of Immigration and Colonization, will recruit and select the settlers in the British Isles and, co-operating with the Government of New Brunswick, will locate the settlers in that province and extend settlement service through its Land Settlement Branch. The Government of New Brunswick will acquire the necessary farms and will sell them to the settler on terms calling for 25 annual payments with interest amortized at the rate of 5 p.c. per annum. The British Government will provide funds for acquiring stock and equipment, and for seed, feed and initial payments on farms, which sums will be payable on the same terms as the price of the land.

It is expected that 1929 will see a considerable increase in the movement of British immigrants, especially those of the assisted classes. The nomination system, which has been simplified to avoid delays, has been widely advertised and efforts are being made to increase by this method the movement of young men and young women suitable for farm work and house work, who are as yet without experience in these occupations. As a result of negotiations carried on during the latter part of 1928, a third class ocean passage rate of £10 was established for British migrants coming to Canada. The previous rate for general migrants was £18:15. The £2 ocean rate is continued for women household workers and for families proceeding to work on the land, with free passages for all members of such families under 19 years of age. Boys under 19 years of age accepted under any government scheme for juvenile farm workers or proceeding under the auspices of a recognized voluntary society, and girls up to 17 years of age proceeding to suitable homes under the same arrangements, receive free transportation.

Agreements for the settlement of British boys on farms in Canada have been entered into between the Canadian Government, the British Government and the governments of a number of the provinces. In Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick and Nova Scotia, reception centres have been established for the reception of British boys, from which they are distributed to suitable farm homes in the province, where they can gain experience in Canadian farming methods, at the same time saving up some capital.

The Governments of Manitoba, Ontario, New Brunswick and Nova Scotia are co-operating in a scheme whereby when a boy settled under the above arrangement has reached the age of 21 years, has established his proficiency in farm work, and has saved up approximately $500, he becomes eligible for a loan from the three governments concerned amounting to $2,500 for the purchase of a farm of his own. This loan is repayable over a period of 20 years with interest at 5 p.c.

Alberta has a scheme for providing a month's free training for young men from the United Kingdom who are later placed in selected farm homes by the Land Settlement Branch of the Department of Immigration and Colonization, but the province of Alberta has not yet decided to participate in the Boys' Land Settlement Scheme. Negotiations for the settlement of British boys in British Columbia were under way at the time of going to press.

Facilities for the free medical examination of all migrants coming to Canada from the United Kingdom were extended by providing that the migrant may, if he so desires, be examined free of charge by any one of approximately five hundred British doctors or by one of the official doctors of the Canadian Government.

Increased facilities for training single men for farm work are being provided in the United Kingdom by the British Government. Provision is also being made for the training in the United Kingdom of women in house work under Canadian conditions. It is expected that these two sources of training will result in making available larger numbers of competent farm labourers and house workers from the British Isles.

Co-operation between the Dominion Department of Immigration and Colonization and the Provincial Governments may be said to be the key note of the present immigration policy. Such co-operation offers the greatest measure of protection to the newcomer and is at the same time the best assurance that the needs of the country will be adequately met. All settlers selected by Provincial Government organizations in the British Isles are given the Empire Settlement assistance by the Dominion Government. While the Department of Immigration and Colonization welcomes co-operation of all organizations and booking agencies, the final selection of assisted immigrants is in the hands of Dominion and provincial immigration officials, thus ensuring that selection is uniform and that the needs and interests of Canada are kept in the foreground.

CHAPTER VII.—SURVEY OF PRODUCTION.

The term "production" is used here in its popular acceptation, *i.e.*, as including such processes as the growing of crops, extraction of minerals, capture of fish, conversion of water power into electrical current, manufacturing, etc.—in economic phrase, the creation of "form utilities". It does not include various activities which are no less "productive" in a broad and strictly economic sense, such as (a) transportation, refrigeration, merchandising, etc., which add to commodities already worked up into form the further utilities of "place", "time" and "possession", and (b) personal and professional services, such as those of the teacher and doctor, which are not concerned with commodities at all, but are nevertheless essential to any civilized society—representing, in economic language, the creation of "service utilities".

As showing the importance of these latter activities, it may be pointed out, for comparison with the figures in the accompanying tables, that steam railway gross earnings in 1926, the latest year for which complete statistics of the production of "form utilities" are available, amounted to $493,600,000, street railway gross earnings to $51,700,000, and telephone and telegraph earnings to $62,700,000, all of which, from a broad point of view, may be considered as "production". It may be further noted that of 3,173,169 persons ten years of age and over employed in 1921 in gainful occupations in Canada, 268,092 were engaged in transportation, 310,439 in trade, 61,301 in finance, 500,009 in service (including 216,270 in domestic service, 181,391 in professional service, 94,541 in public administration and 7,807 in recreational service),—a total of 1,139,841 or 36 p.c. of the whole. In other words, only about 65 p.c. of usefully and gainfully employed persons are engaged in "production", according to the definition adopted in the present statement. Since the remaining 35 p.c. are probably as "productive", in the broader sense of the term, as the 65 p.c., we may therefore add seven-thirteenths to the total to obtain a rough estimate of the value in dollars of the total productive activity of the Canadian people, according to the economist's definition of production, which approximates to the concept of national income. Since the net value of the commodities produced in Canada, according to the general survey of production which immediately follows, totalled $2,939,000,000 in 1922, $3,051,000,000 in 1923, $3,018,000,000 in 1924, $3,325,000,000 in 1925 and $3,613,000,000 in 1926, the grand total money value of the productive activities of the gainfully occupied population of Canada may be estimated at $4,520,000,000 in 1922, $4,696,000,000 in 1923, $4,643,000,000 in 1924, $5,115,000,000 in 1925 and $5,558,000,000 in 1926.

The above figure of total production is necessarily larger than the national income, since a considerable deduction must be made therefrom for the purpose of keeping the national capital, engaged in production, unimpaired, before the remainder can be placed at the disposal of individuals. Machinery that is either obsolete or obsolescent must be replaced, buildings and other equipment kept in a good state of repair, etc. In other words, full and adequate provision must be made out of the year's products for the annual depreciation of the equipment used in their production, before any part of that product can be allocated to individuals. On this basis, probably not more than 90 p.c. of the annual value of the productive activities of the Dominion is annually available for consumption as the national income. The national income of the people of Canada in 1926 was thus in the neighbourhood of $5,000,000,000. (See also entry "national income" in the index.)

Section 1.—General Survey of Production.

There is an increasing demand for a survey of production that will differentiate as between the more important branches and at the same time give a purview of the whole which will be free from overlapping. This is somewhat difficult to present with clearness, in view of the varying definitions that attach to industrial groups from different points of view. For example, brick, tile and cement are frequently included in "mineral production", as being the first finished products of commercial value resulting from the productive process; frequently, however, they are regarded as "manufactures" in view of the nature of the productive process—either allocation being correct according to the point of view.

The accompanying tables show the total values of all commodities produced in Canada in the latest years; the values are given as in the producers' hands.

"Gross" and "Net" Production.—The values of products are shown under two headings, namely, "gross" and "net". "Gross" production shows the total value of all the individual commodities produced under a particular heading. "Net" production represents an attempt to eliminate the value of materials consumed in the productive process. For purposes of ordinary economic discussion, the net figures should be used in preference to the gross, because of the large amount of duplication which the latter includes on account of the necessity of making the individual items self-contained.

Interpretation of Items.—The primary industries of agriculture, fishing, forestry, mining, etc., are separated in this statement from the secondary or manufacturing processes. The close association between the two and the overlappings that are apt to occur have already been pointed out. As further explaining the procedure that has been followed in drawing up the tables, the following notes are appended:—

Agriculture.—Dairy factories are included under this heading; farm dairy products (gross) include the milk consumed whole and sold to dairy factories, and butter, etc., made on the farm.

Forestry.—Forestry production is understood to consist of the operations in the woods as well as those of sawmills and pulp-mills, the latter being limited to the making of first products such as lumber, lath, shingles, pulp and cooperage stock.

Fur Production.—The item of fur production is limited to wild life production. To obtain a total of the peltries produced in Canada, it would be necessary to add to the wild life output the production of pelts on fur farms.

Mineral Production.—Under mineral production all items are included that might be allocated to "manufactures". Considerable overlapping exists as between "mineral production" on the one hand and "manufactures" on the other. The Bureau presents the detailed statistics of these groups (the chief of which are smelters, brick, cement, lime, etc.) in its reports on mineral production, since their product is the first to which a commercial value is ordinarily assigned.

Total Manufactures.—The figure given for the heading is a comprehensive one, including the several items listed with the extractive industries above, though also frequently regarded as "manufactures", *viz.*, dairy factories, fish-canning and curing, sawmills, pulp-mills, shipbuilding and certain mineral

industries. This duplication is eliminated from the grand total as well as from "manufactures, *n.e.s.*", listed in Table 4.

Manufactures, n.e.s.—The figures given for manufactures, *n.e.s.*, are exclusive of the value of the products of all manufacturing processes closely associated with the extractive industries that are frequently included under this heading; hence it is obvious that the grand total is equivalent to an amount obtained by adding the values for manufactures, *n.e.s.*, and for the other eight divisions.

Total Net Value of Production.—Approximately 65 p.c. of the gainfully employed persons in the Dominion produced in 1926 goods having a net value of $3,613,455,948. This amount compares with a net production of $3,325,115,594 in 1925, $3,018,182,081 in 1924 and $3,051,456,821 in 1923. "Net" production represents the value left in the producers' hands after the elimination of the value of the materials consumed in the productive process, such as seed in the case of field crops and food in the case of farm animals.

Subsection 1.—The Branches of Production and Their Relative Importance in 1926.

Confining our subsequent analysis to the net production of commodities, "net" production signifying the value left in the producers' hands after the elimination of the value of the materials consumed in the productive process, it is noteworthy that in eight of the nine branches of production, increases were shown in 1926 over 1925, while the decline in forestry was insignificant. The greatest percentage gain was in construction, the net output in 1926 being $251,000,000, an increase of $49,000,000, or 24 p.c. Manufacturing, however, took first place in the matter of absolute increases, the net output of the manufacturing industries in 1926 being $1,519,000,000, compared with $1,361,000,000 in 1925, an increase of $158,000,000 or more than 11 p.c. Mineral production was valued at $240,000,000 as compared with $227,000,000, an increase of nearly $14,000,000 or 6 p.c. The advance in agricultural production was over $30,000,000 or 2·3 p.c., the total for 1926 being $1,373,000,000. Important increases were also attained in the fisheries and electric power divisions, where the gains were 17·5 p.c. and 12 p.c., respectively. A slight decrease was shown in forestry production, while the total for custom and repair industries, estimated for purposes of comparison, shows an appreciable increase.

In view of the greater increase in manufacturing production in 1926, the lead of manufactures over agriculture, which was 1·5 p.c. in 1925, was increased to 10 p.c. in 1926. Agricultural production in 1926 represented 38 p.c. of the net output of all branches, while the value added by manufacturing processes in 1926 was 42 p.c. of the total net production. As explained below, a number of the industries listed under manufactures are also included in the several extractive industries with which they are associated. When this duplication is eliminated, the output of the manufacturing industries not elsewhere included is 33·3 p.c. of the total net production. Forestry held third place with a percentage of 8·7 in 1926 and 9·4 in 1925. Construction moved up into fourth place, with 6·9 p.c., followed closely by mining, with 6·7; in 1925 mining represented 6·8 p.c. and construction 6·1 p.c. The electric power group had an output of 2·4 p.c. of the total net production. Repair work, fisheries and trapping followed with percentages in 1926 of 1·9, 1·6 and 0·5 respectively.

The details of gross and net production are given by industries for the years from 1922 to 1926 in Table 1.

1.—Gross and Net Values of Production in Canada, by Industries, 1922-1926.

GROSS VALUE OF PRODUCTION.

Divisions of Industry.	1922.	1923.	1924.	1925.	1926.
	$	$	$	$	$
Agriculture[1]	1,496,680,534	1,440,394,690	1,530,481,735	1,792,828,807	1,779,175,253
Forestry	361,848,588	426,696,350	433,816,948	434,745,813	454,773,119
Fisheries	53,425,936	54,019,239	56,014,651	61,896,067	73,052,985
Trapping	16,814,302	16,164,559	14,785,634	14,778,173	17,609,036
Mining	191,562,981	229,055,748	230,016,492	253,912,742	279,674,780
Electric power	82,328,866	91,141,296	95,169,768	102,587,882	115,467,940
Total primary production	2,202,661,207	2,257,471,882	2,360,285,228	2,660,749,484	2,719,753,113
Construction	339,389,954	324,745,698	287,687,809	310,215,481	385,913,533
Custom and repair[2]	90,837,351	90,837,351	90,837,351	96,280,000	107,367,900
Manufactures[3]	2,482,209,130	2,781,165,514	2,695,053,582	2,948,545,315	3,247,803,438
Total secondary production	2,912,436,435	3,196,748,563	3,073,578,742	3,355,040,796	3,741,084,871
Grand Total	**4,671,856,648**	**4,946,900,333**	**4,930,417,387**	**5,412,657,934**	**5,810,468,579**

NET VALUE OF PRODUCTION.

Divisions of Industry.	1922.	1923.	1924.	1925.	1926.	Per cent of the net value of production, 1926.
	$	$	$	$	$	
Agriculture	1,148,693,525	1,107,571,858	1,140,895,500	1,342,889,420	1,373,344,000	38·0
Forestry	266,406,716	313,748,937	311,265,847	313,412,842	312,844,584	8·7
Fisheries	41,800,210	42,565,545	44,534,235	47,942,131	56,360,633	1·6
Trapping	16,814,302	16,164,559	14,785,634	14,778,173	17,609,036	0·5
Mining	184,297,242	214,079,331	209,583,406	226,583,333	240,437,123	6·7
Electric power	62,173,179	67,496,893	74,616,863	79,341,584	88,933,733	2·4
Total primary production	1,720,185,174	1,761,627,123	1,795,681,485	2,024,947,483	2,089,529,109	–
Construction	220,460,235	212,155,020	187,114,415	202,102,890	251,088,323	6·9
Custom and repair[2]	58,053,266	58,053,266	58,053,266	61,534,000	68,743,000	1·9
Manufactures[3]	1,198,434,407	1,311,025,375	1,256,643,901	1,360,879,907	1,519,179,246	42·0[4]
Total secondary production	1,476,947,908	1,581,233,661	1,501,811,582	1,624,516,797	1,839,010,569	–
Grand Total	**2,939,313,953**	**3,051,456,821**	**3,018,182,081**	**3,325,115,594**	**3,613,455,948**	**100·0**

[1] The gross value of agricultural production here exceeds that given on page 226 in the agricultural chapter of this edition of the Year Book, by the amount paid to patrons of dairy factories for milk and cream.

[2] Statistics of custom and repair were not collected after 1922, and to effect comparability, the totals for that year were repeated in 1923 and 1924. The totals for 1925 and 1926 were estimated according to the percentage change in the data for manufacturing.

[3] The item "manufactures" includes dairy factories, sawmills, pulp-mills, fish-canning and curing, shipbuilding and certain mineral industries, which are also included in other headings above. This duplication, amounting in 1922 to a gross of $443,240,994 and a net of $257,819,129, in 1923 to a gross of $507,320,112 and a net of $291,403,963, in 1924 to a gross of $503,446,583 and a net of $279,310,986, in 1925 to a gross of $603,132,346 and a net of $324,348,686, and in 1926 to a gross of $650,369,405 and a net of $315,083,730, is eliminated from the grand total.

[4] The proportion of manufactures, freed from all duplication (as explained in note 3), to the grand total of net production was 33·3 p.c.

Subsection 2.—The Trend of Provincial Production during the Post-war Period of Recovery.

While each of the provinces showed a decline in the net value of production in 1921 as compared with 1920, the trend during the period of recovery lasting from 1921 to 1926 exhibited considerable variation in the different provinces. In Prince Edward Island, the lowest point was reached in 1922, with substantial recovery from 1924 to 1926. The depression in Nova Scotia was maintained from 1920 to 1925, production in 1926 showing a marked reversal of the trend in preceding years; the great strike in the coal mines was partly responsible for the poor showing in 1925. The trend in New Brunswick was generally similar to that in Nova Scotia, the chief variation being an increase in 1925, with a further slight increase in 1926.

In Quebec the decline in 1921 was very severe. During the subsequent period the chief features were the substantial gain in 1923, the minor recession of 1924 and the marked recovery in 1925, continued in 1926. The decline of 1921 was also very severe in Ontario, but after that year increases were recorded. The increase in 1924 over the preceding year was very slight, but aside from this partial interruption, a steady rate of increase was maintained from 1922 to 1926.

The special feature in the case of Manitoba was the marked increase in 1924, compared with the preceding year. The decline of 1925 was more than counterbalanced by the increase in 1926. While a decline was shown in Saskatchewan in 1921, the total of 1920 was exceeded in 1922 and again in 1925, when agricultural revenues were very satisfactory. High points in the net value of production in Alberta were attained in 1923 and 1926. In British Columbia, steady increases were shown during the recovery from 1922 to 1926, the upward trend being fairly continuous during the five years.

The values of gross and net production are given by provinces for the years 1922 to 1926 in Table 2. It will be seen that in the four years the total net production of the Dominion increased from $2,939,313,953 to $3,613,455,948, or by $674,141,995 or 23 p.c.

2.—Gross and Net Value of Production in Canada, by Provinces, 1922-1926.

GROSS VALUE OF PRODUCTION.

Provinces.	1922.	1923.	1924.	1925.	1926.
	$	$	$	$	$
P. E. Island	22,627,928	22,629,692	24,378,343	30,433,299	31,648,019
Nova Scotia	161,732,817	169,069,112	145,356,067	143,322,354	169,289,434
New Brunswick	131,750,875	128,569,024	127,429,891	141,589,238	140,899,963
Quebec	1,166,602,077	1,239,158,892	1,207,316,656	1,318,067,087	1,427,395,573
Ontario	2,042,285,042	2,187,229,479	2,147,755,210	2,260,740,955	2,473,574,405
Manitoba	236,682,048	202,478,428	279,328,851	290,363,258	304,955,024
Saskatchewan	375,362,337	336,458,857	330,903,240	467,632,165	430,481,912
Alberta	221,929,251	301,105,188	298,589,566	356,165,710	379,281,718
British Columbia	308,795,097	354,697,808	366,499,403	400,373,303	447,353,935
Yukon	4,089,176	5,503,853	2,860,160	3,970,565	5,588,596
Grand Total	**4,671,856,648**	**4,946,900,333**	**4,930,417,387**	**5,412,657,934**	**5,810,468,579**

2.—Gross and Net Value of Production in Canada, by Provinces, 1922-1926—concluded.

NET VALUE OF PRODUCTION.

Provinces.	1922.	1923.	1924.	1925.	1926.	Percentages of total net value in 1926.
	$	$	$	$	$	
P. E. Island	17,145,781	17,286,696	18,138,381	23,110,406	25,944,890	0·7
Nova Scotia	115,446,269	111,560,712	96,071,433	94,826,633	122,896,283	3·4
New Brunswick	86,742,965	82,575,810	78,298,070	87,097,614	90,004,329	2·5
Quebec	724,923,952	744,895,912	729,992,866	795,993,531	860,554,498	23·8
Ontario	1,154,289,316	1,211,877,669	1,217,764,312	1,259,737,138	1,372,596,603	38·0
Manitoba	158,031,262	124,228,542	190,022,463	181,977,811	200,835,198	5·6
Saskatchewan	311,313,707	280,023,272	237,254,471	360,433,859	351,744,946	9·7
Alberta	161,098,720	241,241,457	210,972,370	257,040,994	294,101,181	8·1
British Columbia	206,297,338	232,279,711	236,816,575	260,941,481	289,189,424	8·0
Yukon	4,024,643	5,487,040	2,851,140	3,956,127	5,588,596	0·2
Grand Total	**2,939,313,953**	**3,051,456,821**	**3,018,182,081**	**3,325,115,594**	**3,613,455,948**	**100·0**

Relative Production by Provinces, 1926.—Ontario and Quebec held first and second places among the provinces in the net value of production, and the percentage of Ontario to the total was even higher than in 1925. The net output in the two provinces during 1926 represented 38·0 p.c. and 23·8 p.c., respectively, compared with 37·9 p.c. and 23·9 p.c. in 1925. Saskatchewan held third place with a percentage of 9·7 in 1926, compared with 10·8 in 1925. Alberta occupied fourth place in 1926 with a percentage of 8·1, while British Columbia was fifth with a percentage of 8·0 and Manitoba sixth with a percentage of 5·6. Nova Scotia, New Brunswick and Prince Edward Island were next in importance in the order named with percentages in 1926 of 3·4, 2·5 and 0·7 respectively. The Yukon Territory contributed 0·2 of the total.

Subsection 3.—Types of Productive Activities in the Various Provinces in 1926.

Production in Nova Scotia was principally in the agricultural, manufacturing and mining industries, which respectively accounted for 31 p.c., 28 p.c. and 23·5 p.c. of the net output of the province; the contribution of manufactures, aside from processes carried on in connection with the extractive industries, was 20·5 p.c. In view of the recession in the lumber industry in New Brunswick, agriculture took first place as a producer of new wealth, the proportion being 36·6 p.c., while forestry furnished an output of 29·7 p.c.; manufacturing occupied third place with a net output of 19 p.c., followed by fisheries with 5·9 p.c. Agriculture, including fur farming, contributed 86·9 p.c. of the net output of Prince Edward Island. A decline in the net output of forestry and construction in the Maritime Provinces was counterbalanced by increases in agriculture, manufactures, mining and other lines. The net result was that the value of production was 16 p.c. greater in 1926 than in the preceding year, Nova Scotia showing an increase of nearly 30 p.c.

The value of the product derived from manufactures in Quebec was greater than that from any other industry. Manufactures, aside from the output of establishments associated with the extractive industries, contributed 43·9 p.c., while the net output of the entire manufacturing division, referred to the same base, was 53·7 p.c. Farming came second with a production of 24·3 p.c., and construction, with an output of 12·0 p.c., occupied third place. With the exception of

agriculture, increases were shown in each of the branches of production in 1926 as compared with 1925. The increases in manufactures and in the generation of electrical energy reached 13·3 p.c. and 13·7 p.c. respectively.

The net production from the manufactures of Ontario, when stripped of all duplication, was $649,666,662 or 47·3 p.c. of the total, compared with $378,092,000 or 27·6 p.c. from agriculture. Construction held third place with 6·8 p.c. of the total, and forestry followed with 6·4 p.c. The mining output was 6·2 p.c. of the net production of the province. The increases in 1926 over 1925 in agriculture, construction, electric power, trapping, repair work and manufactures more than counterbalanced the decline in the remaining branches of production. The net output of manufactures increased by $71,700,000, and agriculture showed a gain of $14,700,000. Except in forestry, fisheries and construction, Ontario led the other provinces and divisions in the productiveness of its main branches of industry. The province yielded precedence in forestry operations and in construction to Quebec alone, while British Columbia, Nova Scotia and New Brunswick obtained a greater income from the fisheries. Nearly 51 p.c. of the net manufacturing output of the country was contributed by Ontario and 27·5 p.c. of the agricultural income was derived from the same source.

About 90 p.c. of the output of Saskatchewan was obtained from farming, which also largely predominated as a producer of new wealth in Manitoba and Alberta, the proportions being 60 p.c. and 75 p.c. respectively. Mineral production, chiefly coal-mining, held second place in Alberta, with an output of 9 p.c. of the provincial total. Manufacturing was second in importance in Manitoba and Saskatchewan. Larger grain yields accounted for the increase in the net production of Manitoba and Alberta, while agricultural income showed a decline in Saskatchewan. Despite the decline in Saskatchewan, the net value of production in the three Prairie Provinces showed an increase of $47,000,000 or 6 p.c. as compared with 1925.

The net production from manufacturing in British Columbia during 1926 was in excess of $111,700,000, but more than half of this amount was derived from manufacturing processes closely associated with the primary industries, especially logging and fishing. The remainder, $48,000,000, was 16·6 p.c. of the net output of the province. Aside from manufacturing, forestry constituted the chief source of new wealth—about 26·8 p.c. of the total output of the province was contributed by the forest. Mining and farming followed in order, with percentages of 23 and 12 respectively. The general increase in the net output of production in the province during 1926 indicates that the improvement in business conditions was well distributed throughout the main branches of industry.

—Gross and Net Values of Production in Canada, by Industries and Provinces, 1926.

GROSS PRODUCTION.

Industries.	Prince Edward Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.
	$	$	$	$	$
griculture	26,302,220	45,706,342	38,814,853	296,690,988	558,984,501
orestry	797,959	12,383,993	38,981,389	149,389,270	127,338,147
sheries	1,923,866	16,951,521	6,338,097	3,581,384	3,152,193
apping	4,454	177,137	234,832	2,923,809	3,799,348
ining	–	28,873,792	1,811,104	25,956,193	92,536,728
ectric power	158,891	2,755,045	1,859,611	31,550,700	56,332,508
onstruction	374,000	4,832,302	4,593,000	157,888,388	144,894,829
istom and repair	262,900	3,611,000	2,260,000	20,500,000	49,510,000
anufactures[1]	4,069,335	73,505,642	74,122,239	905,300,824	1,677,933,504
Grand Total	**31,648,019**	**169,289,434**	**140,899,963**	**1,427,395,573**	**2,473,574,405**

3.—Gross and Net Values of Production in Canada, by Industries and Provinces 1926—concluded.

GROSS PRODUCTION—concluded.

Industries.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Yukon.
	$	$	$	$	$
Agriculture	145,495,121	364,322,781	255,164,696	47,693,751	–
Forestry	4,792,129	2,683,715	4,788,746	113,617,771	–
Fisheries	2,328,803	1,444,288	749,076	37,565,891	17,866
Trapping	1,558,239	1,609,622	2,178,567	1,779,111	3,343,917
Mining	3,073,528	1,193,394	26,977,027	97,026,201	2,226,833
Electric power	5,358,630	3,085,747	3,818,791	10,451,862	96,155
Construction	19,212,701	14,251,500	10,058,400	29,808,413	–
Custom and repair	8,182,000	6,720,000	7,080,000	9,242,000	–
Manufactures[1]	132,718,452	47,108,097	83,425,631	249,619,714	–
Grand Total	**304,955,024**	**430,481,912**	**379,281,718**	**447,257,780**	**5,684,753**

[1] The totals for manufactures include duplicated amounts which were deducted in computing the gr... total for each province. The duplication arises from including in two places a number of industries wh... may be regarded as extractive or as manufacturing processes. Shipbuilding has been included under co... struction as well as under manufacturing. The following statement gives the amount of the duplication b... provinces:—Prince Edward Island, $2,245,606; Nova Scotia, $19,507,340; New Brunswick, $28,115,... Quebec, $166,385,983; Ontario, $240,907,353; Manitoba, $17,764,579; Saskatchewan, $10,937,232; Alber... $14,959,216; British Columbia, $149,546,934.

[2] Includes the trapping industry of the Northwest Territories.

NET PRODUCTION.

Industries.	Prince Edward Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.
	$	$	$	$	$
Agriculture	22,530,000	38,054,000	32,906,000	209,338,000	378,092,000
Forestry	743,082	10,177,119	26,767,453	99,651,484	87,695,69...
Fisheries	1,358,934	12,505,922	5,325,478	3,110,964	3,152,19...
Trapping	4,454	177,137	234,832	2,923,809	3,799,3...
Mining	–	28,873,792	1,811,104	25,956,193	84,702,2...
Electric power	158,607	2,206,171	1,399,166	25,894,000	39,778,3...
Construction	243,000	3,325,179	2,989,000	102,800,142	94,060,0...
Custom and repair	167,000	2,310,000	1,445,000	13,106,000	31,650,0...
Manufactures[1]	1,431,375	34,368,377	30,047,278	462,373,211	769,888,8...
Grand Total	**25,944,890**	**122,896,283**	**90,004,323**	**869,554,498**	**1,372,596,6...**

Industries.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Yukon.
	$	$	$	$	$
Agriculture	120,166,000	316,886,000	219,877,000	35,495,000	
Forestry	3,904,185	2,476,729	4,017,875	77,410,961	
Fisheries	2,328,803	444,288	749,076	27,367,109	17,...
Trapping	1,558,239	1,609,622	2,178,567	1,779,111	3,343,...
Mining	3,073,528	1,193,394	26,977,027	65,622,976	2,226,...
Electric power	4,770,166	3,071,082	3,452,654	8,119,1 4	84,...
Construction	12,479,354	9,260,000	6,519,000	19,412,570	
Custom and repair	5,334,000	4,296,000	4,525,000	5,910,000	
Manufactures[1]	57,717,923	17,980,062	33,599,099	111,773,090	
Grand Total	**200,835,198**	**351,744,946**	**294,101,181**	**289,109,011**	**5,673,...**

[1] The totals for manufactures include duplicated amounts which are deducted in computing the gr... total for each province. The duplication arises from including, in two places, industries which ma... regarded as extractive or as manufacturing processes. Shipbuilding has been included under construc... as well as under manufacturing. The following statement gives the amount of the duplication by provin... Prince Edward Island, $691,562; Nova Scotia, $9,101,414; New Brunswick, $12,920,982; Quebec, $84,599,... Ontario $120,222,169; Manitoba, $10,497,000; Saskatchewan, $5,472,231; Alberta, $7,794,117; Br... Columbia, $63,784,950.

[2] Includes the trapping industry of the Northwest Territories.

1.—Percentage of the Value of the Net Production in each Industry to the Total Net Output of each Province, 1926.

Industries.	Prince Edward Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.
Agriculture	86·9	31·0	36·6	24·3	27·6
Forestry	2·9	8·3	29·7	11·6	6·4
Fisheries	5·2	10·2	5·9	0·4	0·2
Trapping	0·0	0·1	0·3	0·3	0·3
Mining	0·0	23·5	2·0	3·0	6·2
Electric power	0·6	1·8	1·6	3·0	2·9
Construction	0·9	2·7	3·3	12·0	6·8
Custom and repair	0·6	1·9	1·6	1·5	2·3
Manufactures, n.e.s.	2·9	20·5	19·0	43·9	47·3
Grand Total	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
Total Manufactures (percentage to grand total of net production)	5·5	28·0	33·4	53·7	56·1

Industries.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Yukon.	Canada.
Agriculture	59·8	90·1	74·8	12·3	–	38·0
Forestry	1·9	0·7	1·4	26·8	–	8·7
Fisheries	1·2	0·1	0·2	9·5	0·3	1·6
Trapping	0·8	0·5	0·7	0·6	58·9[1]	0·5
Mining	1·5	0·3	9·2	22·7	39·3	6·7
Electric power	2·4	0·9	1·2	2·8	1·5	2·4
Construction	6·2	2·6	2·2	6·7	–	6·9
Custom and repair	2·7	1·2	1·5	2·0	–	1·9
Manufactures, n.e.s.	23·5	3·6	8·8	16·6	–	33·3
Grand Total	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
Total Manufactures (percentage to grand total of net production)	28·7	5·1	11·4	38·7	–	42·0

[1] Includes the trapping industry of the Northwest Territories.

CHAPTER VIII.—AGRICULTURE.

Agriculture, including stock raising and horticulture, is the chief single industry of the Canadian people, employing in 1921 32·8 p.c. of the total gainfully occupied population and 38·16 p.c. or nearly two-fifths of the gainfully occupied males. In addition, it provides the raw material for many Canadian manufactures and its products in raw or manufactured form constitute a very large percentage of Canadian exports. For a statement on the occupied and the available agricultural lands in Canada, see p. 36 of this volume.

This chapter of the present volume begins with a statement of current governmental activities in connection with agriculture, including those of the Dominion and Provincial Experimental Stations. Then come statistics of agriculture, including agricultural revenue and wealth, field crops, farm live stock and poultry, fur farming, dairying, fruit, special crops, farm labour and wages, prices and miscellaneous, and since Canadian exports of agricultural commodities are sold in the world market, the chapter closes with a review of the world's statistics of agriculture, compiled from the publications of the International Institute of Agriculture.

The Canada Year Book, 1924, contained on pages 186 to 191 an article on the "Development of Agriculture in Canada", by Dr. J. H. Grisdale, Deputy Minister, Department of Agriculture, Ottawa. To this the interested reader is referred.

Section 1.—The Government in Relation to Agriculture.

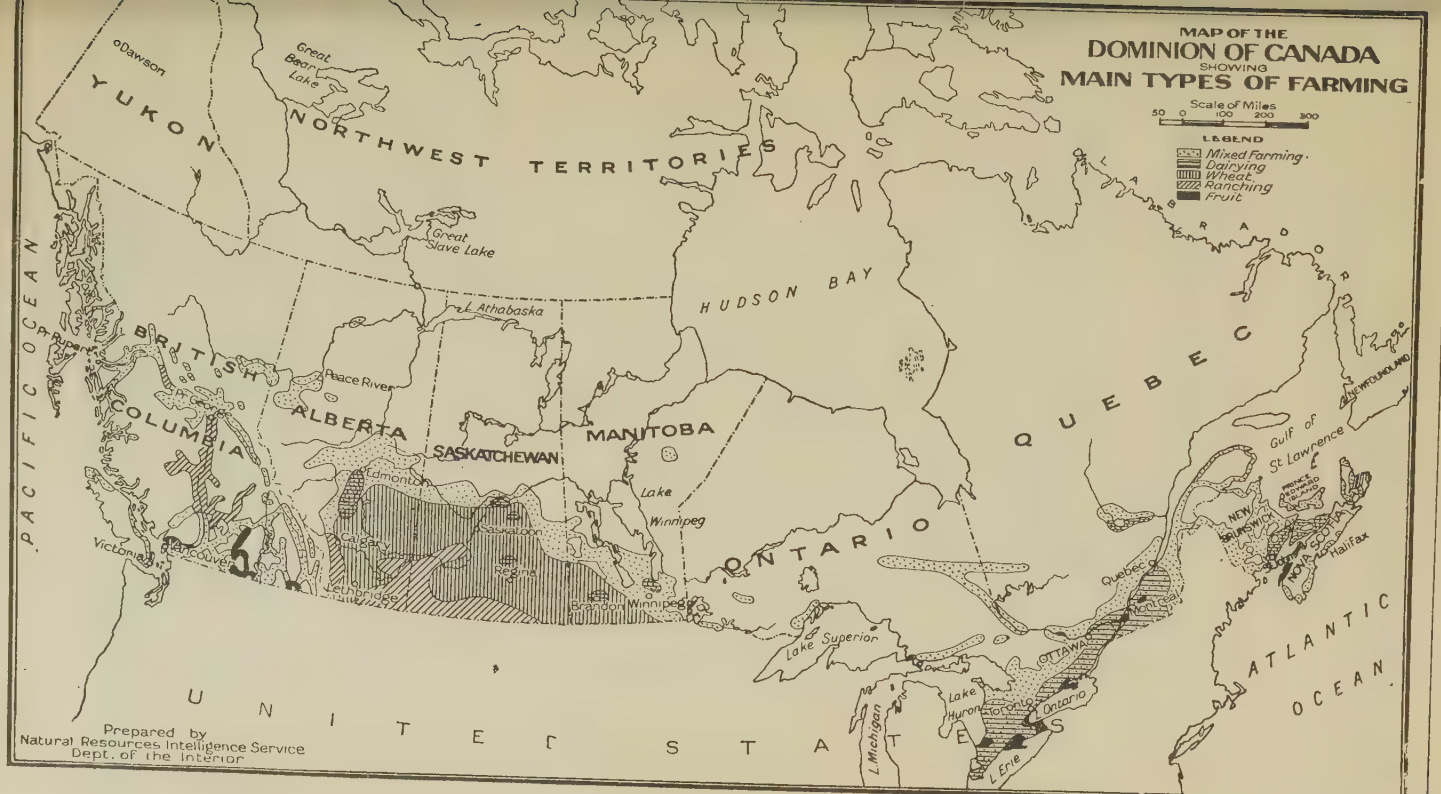
It is provided in section 95 of the British North America Act that "in each province the Legislature may make laws in relation to agriculture in the province" and it is also "declared that the Parliament of Canada may from time to time make laws in relation to agriculture in all or any of the provinces; and any law of the Legislature of a province relative to agriculture . . . . shall have effect in and for the province as long and as far only as it is not repugnant to any Act of the Parliament of Canada".

As a result of this provision, there exist at the present time Departments of Agriculture with Ministers of Agriculture at their head both in the Dominion and in each of the nine provinces, though in most provinces the portfolio of Agriculture is combined with one or more other portfolios in the hands of a single Minister. A short sketch of the functions of the various Departments is appended.

Subsection 1.—The Dominion Department of Agriculture.

The Dominion Department of Agriculture was constituted in 1868 under authority of 31 Vict., c. 53, with numerous functions that were by no means purely agricultural, including (1) agriculture; (2) immigration and emigration; (3) public health and quarantine; (4) the marine and immigrant hospital at Quebec; (5) arts and manufactures; (6) the census, statistics and the registration of statistics; (7) patents of invention; (8) copyright; (9) industrial designs and trade marks.

In the course of time the purely agricultural work of the Department came to demand greater attention; the non-agricultural functions were one by one entrusted to other Departments of the Government, while specialization became the order of the day within the Department itself. At the present time it includes the following branches:—(1) Experimental Farms; (2) Dairy and Cold Storage; (3) Health of Animals; (4) Live Stock; (5) Seed; (6) Entomological; (7) Fruit; (8) Publications.



MAP OF CANADA SHOWING MAIN TYPES OF FARMING.

For the Acts of Parliament administered by the Dominion Department of Agriculture, see in the index "Acts of Parliament administered by Dominion Government Departments". For the publications of the Department, covering a wide field of information, see in the index the entry "Publications of Dominion Departments".

Subsection 2.—Provincial Departments of Agriculture.

Prince Edward Island.—The Department is under the Minister of Agriculture, who supervises agricultural instruction, the cheese and butter factories, and the women's institutes of the province.

Nova Scotia.—Agriculture in the Province of Nova Scotia is administered as a branch of the Department of Natural Resources. The administration of the Agricultural Branch is divided into twenty main divisions:—(1) administration, (2) agricultural college, (3) demonstration farm, (4) demonstration poultry plant, (5) poultry, (6) government creameries, (7) government cheese factory, (8) dairying, (9) horticultural, (10) apiculture, (11) live stock, (12) entomological, (13) botanical, (14) soils and fertilizers, (15) agricultural associations and societies, (16) exhibitions, (17) extension service, (18) women's institutes, (19) field crops, (20) marketing.

New Brunswick.—The branches of the Department of Agriculture of New Brunswick are as follows:—(1) industry, immigration and farm settlement, (2) elementary agricultural education, (3) agricultural societies and live stock, (4) dairying, (5) horticulture, (6) soils and crops, (7) poultry, (8) bee-keeping, (9) women's institutes, (10) agricultural representatives.

Quebec.—The Quebec Department of Agriculture includes the following branches:—dairy, live stock, poultry, field husbandry, horticulture, bee-keeping and sugarmaking, domestic economy, publications, the Journal of Agriculture, county agents (agriculturists), entomology and plant pathology, the provincial laboratory and dairy school. Other important activities under the supervision of the Department are:—the agricultural societies and farmers' clubs, demonstration farms, demonstration fields, household science teaching, women farmers' clubs, co-operative agricultural societies, agricultural schools and the veterinary school.

Ontario.—The Ontario Department of Agriculture includes the following branches:—agricultural societies, live stock, institutes, dairy, fruit, co-operation and markets, statistics and publications, agricultural representatives, colonization and immigration. The Department conducts the Ontario Agricultural College, the Ontario Veterinary College and the experimental farm at Guelph, the Agricultural School at Kemptville, the Ridgetown experimental farm, the horticultural experimental station at Vineland and the demonstration farm at New Liskeard.

Manitoba.—The Manitoba Department of Agriculture includes an agricultural extension service, a dairy branch, a publications and statistics branch, a live stock branch, a game branch, a co-operative marketing branch, and a weeds branch. It also conducts the Manitoba branch of the Employment Service of Canada.

Saskatchewan.—The work of the Department of Agriculture is chiefly administrative. It includes the following principal branches:—live stock, field crops, dairy, bureau of statistics, co-operative organization and markets. The live stock branch provides the organization for examining and licensing stallions, purchasing a

selling cattle, sheep and hogs to farmers on credit terms, registering brands for live stock and selling cultures for the prevention of black leg and other diseases of live stock. The field crops branch aids in promoting better crops and providing control measures for suppressing insect and weed pests. The exhibition work of the Department is also supervised by the branch. The dairy branch directs the grading of cream at all the creameries, promotes herd improvement through cow-testing and administers the provisions of the Dairy Products Act with respect to licensing creamery operators, cream testers, and the bonding of creameries. The bureau of statistics, in co-operation with the Dominion Bureau of Statistics, maintains a crop-reporting service and gathers data annually respecting the crops and live stock of the province. The co-operative organization and markets branch grants charters to co-operative associations under the Agricultural Co-operative Associations Act, promotes co-operative stock shipping and poultry marketing and maintains an exchange service by a weekly news letter through which buyer and seller are brought together. Agricultural societies are organized by the Department and grants are paid through the Department, while direction of the activities of societies is centred in the College of Agriculture of the University of Saskatchewan.

Alberta.—The Alberta Department conducts the following main services:—agricultural schools and demonstration farms, seeds and weeds, dairy, live stock, veterinary, poultry, fairs and institutes, branding, game regulation, women's home bureau service, provincial publicity bureau, crop reports and statistics, marketing services, district agriculturists and moving picture bureau.

British Columbia.—The branches of the Department of Agriculture are:—horticultural, field crop, live stock, dairy, inspection and fumigation of imported fruits and nursery stock, etc., entomology and plant pathology, markets, apiary inspection, statistics and publications.

For the publications of the Provincial Departments of Agriculture, see in the index the entry "Publications of Provincial Governments".

Subsection 3.—Dominion and Provincial Agricultural Experimental Stations.

Amongst the most important contributions of Canadian Governments to the development of agriculture throughout the country, is the maintenance of agricultural experimental stations, where research work in both plant and animal breeding and adaptation to climatic conditions is carried on. Already this work has had a profound effect in the improvement of Canadian agriculture. The introduction during recent years of Marquis wheat is an outstanding example, and it is of interest to note that other newer wheats, particularly Garnet, also originated by the Experimental Farms, may in the near future replace the Marquis in large areas. Among the earlier experiments undertaken, the results of which have passed permanently into good Canadian farm practice, may be mentioned those relating to early seeding, summer fallowing, the use of farmyard manure, the fertilizing value of clover crops and the introduction of suitable grasses and clovers. Both the common red clover and alfalfa now enter into rotations as the result of experiments and efforts to obtain hardy strains and to discover means of resistance to winter-killing. Further experiments with earlier-ripening and drought-resisting cereals are now being carried on, each new discovery increasing the cultivable area of Canada. Other researches relate to the production of frost-resisting fruit trees

for the Prairie Provinces. This research work has already had a profoundly ameliorating effect upon Canadian agriculture; statements regarding the work now under way at the Dominion Experimental Farms and Stations and at Provincial Agricultural Colleges and Experimental Stations are appended.

(A) Dominion Experimental Farms and Stations.

Inaugurated in 1886 by Act of Parliament (49 Vict., c. 23), the Dominion Experimental Farms system was at first made up of the Central Farm at Ottawa and four Branch Farms:—one at Nappan, Nova Scotia, for the Maritime Provinces; one at Brandon for Manitoba; one at Indian Head for the Northwest Territories; and one at Agassiz for British Columbia.

The opening up and rapid settlement of the Dominion have led to a corresponding increase in the number of Experimental Farms and Stations.[1] These, with an Experimental Fox Ranch, now total 27, with a total acreage of 14,255·81, as compared with the original five farms, with a total acreage of 3,472, established in 1886. The following table shows the present number of Farms and Stations, with the acreage of each and the date of establishment.

DOMINION EXPERIMENTAL FARMS AND STATIONS, 1928.

Farm or Station.	Province.	Acreage.	Date established.
Central Farm, Ottawa	Ontario	825·5	1886
Kapuskasing Station	Ontario	1,270	1910
Harrow Station	Ontario	198·3	1909
Charlottetown Station	Prince Edward Island	173·1	1909
Summerside Fox Ranch	Prince Edward Island	5	1925
Nappan Farm	Nova Scotia	465	1886
Kentville Station	Nova Scotia	452·9	1912
Fredericton Station	New Brunswick	525	1912
Ste. Anne de la Pocatière Station	Quebec	251	1911
Cap Rouge Station	Quebec	345·3	1911
Lennoxville Station	Quebec	600	1914
Farnham Station	Quebec	95	1912
La Ferme Station	Quebec	1,200	1916
L'Assomption, P.Q.	Quebec	160	1928
Brandon Farm	Manitoba	652	1886
Morden Station	Manitoba	302	1911
Indian Head Farm	Saskatchewan	1,320	1886
Rosthern Station	Saskatchewan	650	1909
Scott Station	Saskatchewan	520	1911
Swift Current Station	Saskatchewan	800	1923
Lacombe Station	Alberta	396	1907
Lethbridge Station	Alberta	500	1906
Invermere Station	British Columbia	49·6	1911
Windermere Station	British Columbia	425	1923
Summerland Station	British Columbia	545	1911
Agassiz Farm	British Columbia	1,400	1886
Sidney Station, Vancouver Island	British Columbia	130	1911

In addition there are nine sub-stations, *viz.*:—Wainwright, Alberta; Salmon Arm, B.C.; Fort Vermilion and Beaverlodge, Alberta; Forts Smith, Resolution, Providence and Good Hope, Northwest Territories; Horse Farm, St. Joachim, Que., (operated from Cap Rouge). Experimental work under the Division of Illustration Stations is conducted on 12 farms in Prince Edward Island, 16 in Nova Scotia, 18 in New Brunswick, 63 in Quebec, 15 in Ontario, 13 in Manitoba, 27 in

[1] The five original farms established in 1886 are known as "Experimental Farms"; those added since are styled "Experimental Stations". No distinction in the work is implied by these titles.

Saskatchewan, 19 in Alberta and 16 in British Columbia. Small experimental plots are also being operated at several points along the line of the Hudson Bay railway.

Organization of the System of Experimental Farms.—The Central Farm at Ottawa, as its name implies, is the centre or headquarters of the system. Thereat are situated the Director, having control and general supervision of the whole, and the chief technical officers, each having charge of his special line of work, both at the Central and Branch Farms. At Ottawa, the policy to be pursued throughout the system is settled by agreement after discussion by the Director, the technical officers and the superintendents on whose branch farms the work is to be conducted. The technical staff at Ottawa supervises the actual experimental work at the Central Farm. At the branches, the superintendents are in charge of the carrying out of the various lines of general experiment, and also conduct experiments of local importance.

The Divisions at Ottawa, which represent the different lines of work carried on throughout the system, and have each a technical officer in charge, are as follows:—(1) Animal Husbandry; (2) Bacteriology; (3) Bees; (4) Botany; (5) Cereals; (6) Chemistry; (7) Extension and Publicity; (8) Economic Fibre Production; (9) Field Husbandry; (10) Forage Plants; (11) Horticulture; (12) Illustration Stations; (13) Poultry and (14) Tobacco. Briefly the main lines of the work of these Divisions are as follows:—

Animal Husbandry.—This Division engages in work with beef cattle, dairy cattle and dairying, horses, sheep and swine, and undertakes experiments in the breeding, feeding, housing and management of each of these classes of live stock. Under this Division also is operated the work in breeding cattle and hybrid buffalo at Wainwright, Alberta.

Bacteriology.—The work of this Division is of two types, routine and research. The former includes the bacteriological analysis of water, milk, foods and feeding stuffs, soils and soil condiments, and the manufacture and furnishing of nitro-cultures for legume growing. The main work is of an investigational nature, in which close co-operation with the other Divisions is maintained in research work having a bacteriological bearing.

Botany.—The work of this Division falls into two classes, economic botany and plant pathology. The former includes the study of medicinal, poisonous and economic plants. Different varieties and strains of fibre plants are also studied and special attention is given to the life history and control of weeds. The Division also has charge of the arboretum at the Central Farm. In plant pathology, in addition to the pathological laboratory at Ottawa, there are laboratories at Charlottetown, P.E.I.; Kentville, N.S.; Fredericton, N.B.; Ste. Anne de la Pocatière, Que.; St. Catharines, Ont.; Brandon, Man.; Indian Head, Sask.; Summerland and Vancouver, B.C. In addition, three large laboratories for the study of rusts and other grain diseases are maintained at Edmonton, Alta., Saskatoon, Sask., and Winnipeg, Man. Investigations are being conducted into diseases affecting forest trees, fruit trees, cereals, small fruits, potatoes, vegetables and tobaccos.

Cereals.—In the Cereal Division, the work comprises the production, by cross-breeding and selection, of new varieties of grains and the testing of these as to their suitability for various parts of Canada. Approved varieties are grown on a larger

scale and distributed to farmers. Among the more recent varieties produced in this Division and now widely grown in Canada are the Arthur pea and the Huron, Marquis and Prelude wheats. Two interesting varieties originated by this Division are the Garnet and Major wheats, now being introduced, ripening not quite as early as Prelude but yielding better. The Division also carries on extensive milling and baking tests. The expansion of breeding work, especially for disease resistance, and the creation of an extensive plan of co-operative experiments with farmers, are two developments of the past year.

Chemistry.—The work of the Division of Chemistry comprises the analysis of fodders and feeding stuffs, fertilizers, soils, well waters, insecticides, fungicides, etc. It also assists other Divisions in chemical problems and does a large amount of investigational and analytical work for other Branches and Departments. Field tests with various kinds and quantities of fertilizers are carried on by this Division at a number of the branch farms and stations.

Extension and Publicity.—This Division acts as a connecting link between the Experimental Farms and the farmer, by making the work of the farms as widely known as possible. Two chief means used are exhibits at as many fairs as possible each year and extension of the departmental mailing lists.

Economic Fibre Plants.—The Division studies the areas in Canada suitable for fibre production, the best varieties and strains of seed of fibre plants (flax and hemp), cultural methods, harvesting, retting and scutching processes, etc. Chiefly for demonstrational purposes, the Division is conducting extensive co-operative trials at Forest, Ont., Ste. Anne de la Pocatière, Que., Kentville and Lunenburg, N.S.

Field Husbandry.—This Division applies, under field conditions, the results obtained by other Divisions directly engaged in scientific research. Some of the main lines of work under way are tests of fertilizers, moisture requirements of various crops, methods of drainage, rotations and cultural methods. Data of cost of production of field crops are gathered in connection with this work. Range land investigations are also under way.

Forage Plants.—The Division has for its work the originating and variety testing of grasses, leguminous forage plants, field roots and Indian corn; plant breeding with these; the collection of genera and species likely to be of value as forage plants; the study of the possibilities and methods of growing root seed, including sugar beets, in Canada, and the distribution for trial of seed of varieties newly obtained and not available commercially.

Horticulture.—The work of the Division of Horticulture falls under four main heads:—vegetable gardening, orcharding and small fruits, ornamental gardening and plant breeding. In the three first-named, the testing of varieties is a main feature, with a view to ascertaining the hardiest, earliest, best-yielding and most disease-resistant sorts. In plant breeding, the aim is the improvement of existing sorts by cross-breeding. Greenhouse work is also given special attention at Ottawa. Canning experiments and demonstrations are carried on. Much co-operative work with farmers in orchard experiments, blueberry culture, etc., is under way.

Illustration Stations.—This Division forms another connecting link between the Experimental Farms and the farmer. The stations are now 199 in number. Each

is located on the farm of a representative farmer, who does the work according to directions framed to illustrate the best rotations, the best varieties of crops and the best cultural methods, as determined by the work of years on the Experimental Farms.

Poultry.—The scope of the work of the Poultry Division has been greatly extended during the last few years. It now covers the following main lines of investigation:—artificial and natural incubation, poultry breeding, systems of breeding and rearing, production of heavy-laying strains, feeding for eggs and table, and housing of poultry. Poultry survey work, *i.e.*, the endeavour to get groups of farmers in various localities to keep accurate records of their poultry costs and returns, is already showing results in the better housing, breeding and care of the farm flock. Egg-laying contests and registration work are carried on. Investigations in poultry diseases are extensively conducted in co-operation with the Health of Animals Branch.

Tobacco.—The Tobacco Division deals with the breeding, variety tests and cultural methods, the warehousing and marketing of tobacco. A complete analysis of the soils of the tobacco-producing regions of Canada is being made. During the growing season, inspectors examine the tobacco fields of as many growers as possible, with a view to suggesting the best cultural methods and means of combating diseases and insect pests. Co-operative trials amongst farmers are extensively conducted.

In addition to the work done by the Divisions of Extension and Publicity and Illustration Stations, the results of the work of the Experimental Farms are made available to the farmer:—(1) by correspondence; (2) by publications; (3) by "Seasonable Hints", a 16-page pamphlet, brought out every four months, with a circulation of about 470,000 and now in its fourteenth year; and (4) by articles in the press. The farm officers devote considerable time each year to lecturing, demonstrating, judging at fairs and assisting at short courses in agriculture. Excursions to the various farms are also a valuable means of bringing the work to the attention of the farmer.

(B) Provincial Agricultural Colleges and Experimental Stations.

Nova Scotia.

College of Agriculture, Truro.—The College of Agriculture is situated at Truro, and consists of seven buildings used for instructional and investigational purposes, a general live stock farm of 390 acres with farm buildings, a poultry farm of about 5 acres and a horticultural farm of about 30 acres.

The college is primarily a teaching institution, with three main courses:—(1) the degree course of two terms, running from Nov. 1 to Apr. 30; (2) the farm course of two terms, running from Jan. 1 to Apr. 1; (3) the home economics course of 3 weeks' duration, conducted in January and repeated in March. The degree course is practically identical with the first two years' course at such degree-giving colleges as Guelph and Macdonald. Students completing the two years at Truro are admitted without examination to the third year at these degree-giving colleges and complete their degree course in four years. The qualifications for entrance to this course are farm experience and an education equivalent to university matriculation. The farm course is of shorter duration, planned to meet the needs of the average

farm boy who cannot be spared from the farm for a long period, and also adapted to those of more advanced education who wish to take advantage of a practical course. These two courses were attended by 74 pupils in the session of 1927-28. The home economics course is open to all Nova Scotian women and girls over 16 years of age, and was taken by 32 students in 1928.

On the farm proper is kept an excellent selection of the various classes of live stock. A certain amount of investigational work is conducted, more particularly with fertilizers, lime, permanent pasture crops, silage crops, hay, grain and roots. There are fully equipped chemical and entomological departments, which are carrying out scientific investigations relating to various phases of agriculture in Nova Scotia.

The work of the college is summarized in the annual report of the Department of Natural Resources for Nova Scotia, and a college prospectus is also issued annually. These publications may be obtained on application to the Principal of the College of Agriculture, Truro.

Quebec.

Macdonald College, Ste. Anne de Bellevue.—The college is situated about 20 miles west of Montreal and is incorporated with McGill University. The college property comprises 786 acres, divided as follows:—main farm, 584 acres; agronomy plots, 75 acres; poultry department, 17 acres; orchard, 35 acres; vegetable gardens, 25 acres; the campus, including driveways, lawns, trees, shrubs, flower beds, school garden and recreation fields for students of both sexes, 50 acres. The agricultural economics, agricultural engineering, agronomy, animal husbandry, bacteriology, chemistry, horticulture, physics, plant pathology, poultry and veterinary, entomology and zoology departments are all well equipped for the numerous researches and experiments under way. In the School of Agriculture, the courses offered include 4-year courses, leading to the B.S.A. and B.Sc. in Agr. degrees, a two-year diploma course for farmers and farmers' sons, and various short courses. Post-graduate work can be taken in agronomy, bacteriology, chemistry, entomology and plant pathology—the higher degrees offered being M.S.A., M.Sc. and Ph. D. In the School of Household Science, the courses include a 4-year course, leading to the degree of Bachelor of Household Science, a 2-year institution administration course, a 1-year homemaker course, three short courses, each of about three months duration, in household science, etc. In the School for Teachers, courses under the Protestant Committee of the Council of Public Instruction of the Province of Quebec are offered, leading to intermediate, kindergarten and elementary diplomas. The teaching and experimental staff of the college consists of about 60 members. The total enrolment for 1927-28 was 646. More complete information respecting the work of the college will be found on record in the Canada Year Books of 1916-17, pp. 241-242, and 1918, pp. 235-237. The annual report of the college and the annual announcement should be consulted.

School of Agriculture, Ste. Anne de la Pocatière.—This school, with accommodation for 125 boarders, is situated on the southern slope of a hill dominating a farm of nearly 600 acres. Within one mile of the Intercolonial Railway and on the Quebec-Rivière-du-Loup line, it is easily accessible, and attracts thousands of visitors, who seek agricultural information from both the school and the Dominion Experimental Station, which is not more than a mile from the village. It was established in 1859. The students of the school are divided into (1) those taking a 4-years' agronomic course, and (2) those receiving special practical training

for two years. The school is affiliated to Laval University, Quebec, which awards the degrees of B.S.A. (Bachelor of Science in Agriculture) and M.S.A. to successful students of the first class, whilst those in the other receive a Certificate of Agricultural Proficiency (Brevet de Capacité Agricole). Lectures in adjacent parishes are frequently given by the school's professors, who also conduct agricultural pages in one of the largest provincial weeklies for the extension of new agricultural information. Cultural experiments are also undertaken at the school and bulletins are published.

Oka Agricultural Institute.—Situated on the Lake of Two Mountains, about 20 miles from Montreal, the Oka Agricultural Institute is one of the oldest experimental farms in Canada. It was affiliated to Laval University of Montreal (now University of Montreal) in 1908. The total area of the farm comprises 1,800 acres, including all kinds of soil. Horticulture holds an important place. The area devoted to fruit trees is about 40 acres, and includes 4,000 trees (apples, cherries, pears and plums) grown according to the most recent methods. Special attention is given to the breeding of live stock. The dairy herd is of considerable importance and has been entirely formed at the institute itself. Official milk records begun in 1918 have already resulted in the registration of 52 animals in the "record of performance", with an average yield exceeding 10,000 lb. of milk. The raising of swine, poultry and bees is also practised.

Ontario.

Ontario Agricultural College and Experimental Farm, Guelph.—The college and experimental station were established in 1874 to train young farmers in the science and practice of agriculture and to conduct agricultural experiments for the benefit of the province. The landed property consists of a little more than 700 acres of average loam soil. The farm proper consists of 500 acres; experimental plots of about 100 acres and campus and woodlots form the remainder. The growth of the institution as an educational centre has been very rapid. Academic work at the present time requires the space and equipment of sixteen large buildings for dormitories, class rooms and laboratories. Courses offered include a 4-year course for the degree of B.S.A. (Bachelor of Science in Agriculture), a 2-year course for the associate diploma, winter courses for farmers and farmers' sons, summer courses for teachers of the province and domestic science courses at Macdonald Institute. The teaching and experimental staff consists of about 75 members. In 1874 the college was opened with 28 students. The total enrolment in long and short courses in the academic year 1926-27 was 1,653. More complete information respecting the researches and experimental work undertaken at the college will be found on record in the Canada Year Book of 1916-17, pp. 243-245, and 1918, pp. 238-241. Reference may also be made to the 53rd annual report of the college, covering the year 1927.

The Kemptville Agricultural School and Farm have grown rapidly in importance during recent years. On a somewhat smaller scale than Guelph, they provide excellent agricultural educational facilities for Eastern Ontario.

The Horticultural Experiment Station at Vineland in the centre of the Niagara fruit belt is the most important station in Canada for work upon the special problems of the fruit and vegetable grower. Considerable success is attending the effort to breed improved varieties of such fruits as peaches, cherries, pears, grapes, strawberries and raspberries, as well as important vegetables. Extensive tests of cultural methods for fruits and vegetables are also carried out.

The Ridgetown Experimental Farm in the southwestern peninsula and the New Liskeard Demonstration Farm in Northern Ontario devote particular attention to the crops and problems peculiar to farming in their respective districts.

Manitoba.

Manitoba Agricultural College, Winnipeg.—The agronomy department conducts numerous experiments with a view to the improvement of forage crops and cereal crops, and is also conducting a soil survey and making numerous researches on Manitoba soils. It is also carrying on numerous co-operative experiments with farmers to determine the varieties of grain, grasses and clovers suitable to various sections of the province and is studying the factors affecting the quality of farm crops.

The work in forage crop improvement has for its object the production of plants suitable under Manitoba conditions for hay, pasture and fodder. The major investigations are being conducted with alfalfa, red clover, sweet clover, brome grass, meadow fescue and corn.

In cereal crop work the aim is the improvement of cereal crops, flax, peas and buckwheat for use in the various districts of Manitoba. Especial attention is being given to the development of rust-resistant wheat, cold-resistant oats, and barbless awned barley.

The soils work has consisted of making a soil survey of the portion of the Red River valley west of the Red river and south of Winnipeg. In this district the soil appears fairly uniform, but when profiles are taken considerable variations exist, accounting for the good crops in one section and poor crops in another. Work is being undertaken to determine methods of improving the poor areas. Important laboratory studies are being made on these soils to determine the fundamental reasons for crop differences. An experimental field is also operated on the college farm, where various tillage, fertilizer, and rotation experiments are conducted.

In crop management, most of the effort is being put on barley, since this crop is of growing importance. Varieties, environment and agricultural practices are being studied to arrive at the best method of producing good malting barley. In addition to this a co-operative project is being undertaken in an endeavor to produce and market malting barley suitable for the British trade. The results of work with other farm crops are being published in popular form from time to time as fast as the data can be collected and conclusions drawn.

The department of chemistry, in conjunction with the National Research Council, is making an exhaustive study of the effects of heat drying, of weathering and of frost on wheat. Samples are grown under controlled conditions, and milling, baking and chemical tests are made. Samples are also drawn from grain in the trade and tests made.

The departments of botany, engineering, animal husbandry, poultry husbandry and dairy husbandry are also carrying on numerous investigations.

Saskatchewan.

University of Saskatchewan, Saskatoon.—The College of Agriculture has over 1,300 acres of land (exclusive of the site for the buildings) at the University and another 560 acres about 35 miles distant, which were bequeathed to the college by a pioneer settler, an ex-student of the University of Cambridge, England. Of this

1,300 acres, 210 acres are set aside for experimental work in field husbandry and horticulture. Two hundred and seventy acres of prairie were purchased in 1918, 100 acres of which have been broken for the field husbandry department. The remaining 800 acres are operated as a general farm with great diversification of crops. The buildings, paddocks, etc., are located on an adjoining half section of land designated as the campus or building plot. The college offers a 4-year course leading to a degree of Bachelor of Science in Agriculture (B.S.A.) and a 3-year associate course for farmers' sons intending to make farming their life work. Short courses in general agriculture, tillage, crops, live stock, poultry, dairying and engineering are held during the winter months, both at the college and at various points throughout the province.

Practical experiments in the departments of field and animal husbandry, poultry, dairy, soils and horticulture are undertaken, as well as a variety of scientific investigations in the departments of chemistry, physics, biology, engineering, etc. Special equipment and staff are provided for investigations in animal and plant diseases and entomology. Considerable progress has been made in an intensive soil survey of the province and in breeding a rust-resistant wheat.

Alberta.

College of Agriculture, Edmonton South.—This college is a faculty in the University of Alberta, Edmonton South. A definite 4-year course with matriculation entrance, leading to the B.S.A. degree, is offered. Students from the provincial schools of agriculture enter the second year of the course after satisfying special entrance requirements. At the college numerous agricultural experiments are being conducted, including the following:—determination as to whether the present varieties of wheat, oats, barley and peas are suitable for the Park Belt sections of Alberta; breeding and selection of promising varieties of wheat for earlier maturity combined with high milling qualities; milling and baking tests; testing of alfalfa, red clover, sweet clover and alsike for winter hardiness, and of sweet clover in the Open Plains sections to determine its drought hardiness; varieties of corn and sunflowers for fodder; relative suitability of corn and sunflowers for the Park Belt; selection of a suitable grain corn for the dry sections; growth of alfalfa and sweet clover for hay and seed; nurse crops with clover and timothy. Extensive experiments in the feeding of cattle, sheep and swine have been under way for 10 years, including both winter feeding and summer pasture work. Other researches have been made on the utilization of the native grasses of Alberta; hay and pasture production; effects of frost on grain; production of alfalfa seed; factors of hardiness in winter wheat; sunflowers; potatoes; seed production; various experiments with cattle, sheep and swine.

A soil survey of the province has been under way for five years, and reports have been published on the Macleod, Medicine Hat and Sounding Creek areas. For the past two years the survey has been concerned with the wooded areas of northwestern Alberta.

Research work has been undertaken in connection with insect pests, and in the department of dairying. As regards the publication of results, regular service by radio broadcasting is now in its third year, and has proved very successful. The University now owns a broadcasting outfit.

British Columbia.

Department of Agriculture.—*Horticultural Branch.*—Extension work is undertaken in the fruit and vegetable growing sections of the province, including the testing of new sprays for insect and disease control, as well as the establishment of trial plots to ascertain the most satisfactory fertilizers for various horticultural crops. In addition, inspection and quarantine work is carried out on nursery stock and in fruit areas as the occasion demands. *Field Crop Branch.*—Efforts are being made to encourage farmers to use good seed of tested varieties, with the object of securing better yields and more uniform crops and controlling the spread of weeds. Educational work is being carried on in connection with weed eradication. Encouragement is being given in the production of mangel, carrot and swede turnip seed. Fertilizer demonstrations under the direction of this branch are being systematically carried on in various parts of the province.

University of British Columbia.—Progress is being made in the clearing and preparation of land for experimental and general farm purposes. About 150 acres are now under crop. Adequate buildings for the various departments are being gradually constructed. In the departments of agronomy and horticulture plant improvement and breeding work have quite rapidly advanced. In the department of animal husbandry a splendid foundation has been laid in the various breeds of live stock, which include Jersey, Ayrshire, Shorthorn and Hereford cattle; Clydesdale horses; Yorkshire and Duroc Jersey swine; Rambouillet and Oxford Down sheep. Experimental work in feeding and disease control has been commenced. In the department of dairying, good progress has been made in research, particularly with the various kinds of cheese. In the department of poultry husbandry, pedigree stock is maintained for improvement work in Barred Rocks, Rhode Island Reds, White Leghorns, White Wyandottes and some lesser breeds. The record work already accomplished in this department is of considerable value. In addition to the teaching and investigational work at the university, provision is also made for a number of investigational projects throughout the province. These include dairy farm management, poultry farm management and studies in small fruits and tree fruits.

Section 2.—Statistics of Agriculture.

Census Statistics.—At each of the six decennial censuses of Canada taken since Confederation, statistics of the agricultural activities carried on throughout the country have been secured. The scope of these statistics has been extended from time to time and those of the census of 1921 omit few important phases of agriculture with which a census could deal successfully. In all the later censuses the statistics of number, acreage and condition of farms, the value of farm property, the acreage sown, the yield of crops, the value of that yield, the number of fruit trees and the production and value of fruit, the number and value of live stock, etc., have been collected on a basis which allows comparison between the different censuses. Among the extensions in the scope of the census of 1921 may be mentioned such matters as the details of birthplace, age, length of residence in Canada and experience of farm operators, the chief items of farm expenditure, an attempt for the first time to obtain the quantities of vegetables grown for sale, a classification of live stock, according to age, etc., the number and value of young animals raised on farms, and an enumeration of farm facilities, including tractors, automobiles, tele-

nones and gas and electric lighting. As a result of these extensions, comparisons ith future censuses will be on a much more detailed basis than in the past, and the end of agricultural development will be seen with greater accuracy. The statistics agriculture collected in the census of 1921 are published in full detail in Volume of the census series, while a few of the most significant features showing the growth the agricultural industry from 1871 to the present will be found on pp. xxvi-xvii of the introduction to this volume, in the "Statistical Summary of the Progress Canada". It may be noted that although the next general census of agriculture ill not take place until 1931, a census for the three Prairie Provinces was taken 1926 in connection with the census of population of that year, the results being ublished for each of these provinces separately as Part II of the respective Census ports.[1] Censuses of these three provinces were also taken in 1906 and 1916.

Crop-Reporting Service.—The voluntary crop-reporting service of the ominion Government, which has been in operation since 1908, has for its object e issue of accurate, timely and independent reports on crop conditions throughout e Dominion:—first, in the interests of the general body of Canadian farmers; condly, for the information and guidance of other interests allied to and dependent on agriculture (interests represented by statesmen, economists, bankers, grain alers, transportation agents and others); and thirdly, for reporting to the Institute Agriculture at Rome (to which Canada is an adhering country), in return for ports on the production of other countries and of world totals which influence ices and consequently affect the interests of Canada. A description of the crop-porting service will be found in the Canada Year Book, 1925, p. 205, while the ogramme of reports for 1929-30 is given in the Monthly Bulletin of Agricultural atistics, January 1929, p. 40.

Annual Statistics.—Linked with the monthly crop-reporting service, but dependent of it, are the plans for the collection of annual statistics of the areas der field crops and also of the numbers of farm live stock. These have been in rce since 1918, and are carried out by the Dominion Bureau of Statistics in co-eration with the provincial Governments. The statistics are secured by a simple hedule calling for a statement of the areas sown to field crops and of the numbers farm animals alive on June 15. These statements are at present received from out one-fifth of the farmers of Canada outside Quebec, and they form the basis the totals for the whole of Canada, the totals being calculated according to the oportion which exists between the number of returns and the total number of rmers. The results for wheat, oats, barley, rye and flax in the three Prairie ovinces are ready for publication in August, while the results for the remaining ops and for the numbers of farm live stock are published in the fall. The areas, us determined, when multiplied by the average yields per acre as reported by op correspondents, give the total estimated production for each crop.

In 1927, in seven of the provinces, the schedules were distributed and collected rough the agency of the rural schools, under plans which have been found effective securing a larger sample of the farms of the country than could be obtained any other way. In British Columbia the schedules were sent direct to the farmer rough the mail. For the province of Quebec, as in 1924, 1925 and 1926, no annual atistics were collected, and the Bureau, therefore, resorted to estimates from the ports of the crop correspondents.[2]

[1] For a *résumé* of the agricultural statistics of the census of 1926, see pp. 271-273.
[2] For further details respecting the crop-reporting service and the collection of annual statistics, see andbook for the use of Crop Correspondents, with Selection of Annual Agricultural Statistics, 1903-26", olished by the Dominion Bureau of Statistics in 1927.

Monthly Bulletin of Agricultural Statistics.—Originally established in 1908 as the "Census and Statistics Monthly", but changed to its present title in April, 1917, this publication is now in its twentieth year. It is the official organ not only for the monthly crop reports and annual statistics previously described but also for statistics of dairying, fur farming, fruit, hives and honey, hops, tobacco, maple products, sugar beets, beet sugar, flax fibre, clover and grass seeds, exports, visible supplies, prices, values, foreign agriculture and other subjects in considerable variety. The results of special agricultural studies and enquiries are also published in the Bulletin. For the year 1927 the Monthly Bulletin consisted of 458 octavo pages and for 1928 of 456 octavo pages.

Presentation of Agricultural Statistics.—In the current edition of the Year Book, statistics of agriculture are presented under the following headings:—(1) Agricultural revenue and wealth; (2) Acreage, yield, quality and value of principal field crops; (3) Farm live stock and poultry; (4) Fur farming; (5) Dairying; (6) Fruit production; (7) Special agricultural crops; (8) Farm labour and wages; (9) Prices of agricultural produce; (10) Agricultural statistics of the census; (11) Miscellaneous agricultural statistics; (12) World's principal agricultural statistics.

Subsection 1.—Agricultural Revenue and Wealth.

Revenue.—Table 1 shows under principal headings the gross agricultural revenue of Canada, by provinces, for the years 1923 to 1927. It is important to note that the figures represent gross values, as no distinction is made between crops used as materials for other kinds of production, such as the feeding of live stock, and no allowance is made for the costs of production.[1]

1.—Estimated Gross Annual Agricultural Revenue of Canada, by Provinces, 1923-1927. ("000" omitted)

Items.	1923.	1924.	1925.	1926.	1927.[2]
	$	$	$	$	$
Canada—					
Field crops	899,226	995,236	1,098,304	1,104,983	1,172,4
Farm animals	125,442	148,324	177,031	178,383	183,1
Wool	3,160	3,771	3,958	4,140	4,
Dairy products	233,683	217,974	241,069	246,319	253,
Fruits and vegetables	58,216	44,848	48,897	43,075	46,
Poultry and eggs	62,370	65,084	74,267	83,569	97,
Fur farming	2,175	3,218	3,679	3,520	3,
Maple products	4,769	5,991	5,288	4,896	4,
Tobacco	3,518	4,359	7,004	7,380	9
Flax fibre	166	712	454	208	
Clover and grass seed	4,360	3,300	3,598	5,097	3
Honey	–	1,954	2,551	1,956	3,
Totals	**1,397,085**	**1,494,771**	**1,666,100**	**1,683,526**	**1,783,**
Prince Edward Island—					
Field crops	10,174	11,990	15,417	17,079	13,3
Farm animals	1,412	1,620	2,276	2,170	2,
Wool	95	119	127	111	
Dairy products	2,804	3,073	3,596	3,244	3
Fruits and vegetables	300	250	250	250	
Poultry and eggs	945	1,115	1,237	1,305	1
Fur farming	1,196	1,475	1,472	1,268	1
Clover and grass seed	21	39	21	72	
Honey	–	–	–	–	
Totals	**16,947**	**19,681**	**24,396**	**25,499**	**22,**

[1] For explanation of the methods used in estimating values, see the Monthly Bulletin of Agricultural Statistics for March, 1922, pp. 85-89, and for March, 1927, pp. 81-84. [2] Subject to minor revision.

1.—Estimated Gross Annual Agricultural Revenue of Canada, by Provinces, 1923-1927 ("000" omitted)—continued.

Items.	1923.	1924.	1925.	1926.	1927.[1]
	$	$	$	$	$
Nova Scotia—					
Field crops	20,505	16,786	18,885	22,649	18,597
Farm animals	3,240	3,537	3,934	3,983	3,832
Wool	306	363	385	375	326
Dairy products	9,487	8,979	10,127	11,526	10,668
Fruits and vegetables	7,776	7,142	5,433	3,533	3,972
Poultry and eggs	975	1,098	1,099	1,332	1,583
Fur farming	123	185	170	212	213
Maple products	28	43	54	22	27
Clover and grass seed	28	29	24	12	8
Honey	–	–	–	–	7
Totals	**42,468**	**38,162**	**40,111**	**43,644**	**39,233**
New Brunswick—					
Field crops	20,864	16,080	25,681	23,338	18,414
Farm animals	2,758	2,687	3,357	3,499	3,249
Wool	197	201	219	197	192
Dairy products	7,712	7,120	7,663	7,905	8,702
Fruits and vegetables	1,195	1,224	1,052	1,019	1,070
Poultry and eggs	1,132	1,208	1,307	1,417	1,744
Fur farming	249	435	407	456	457
Maple products	43	44	30	18	30
Clover and grass seed	40	36	33	18	15
Honey	–	20	17	16	19
Totals	**34,190**	**29,055**	**39,766**	**37,883**	**33,892**
Quebec—					
Field crops	133,137	139,359	150,253	139,263	144,273
Farm animals	24,736	27,116	34,222	35,584	33,298
Wool	1,077	1,277	1,344	1,373	1,090
Dairy products	63,165	65,469	74,828	72,271	79,077
Fruits and vegetables	7,315	6,000	7,405	7,397	7,554
Poultry and eggs	9,364	9,635	10,707	13,492	14,861
Fur farmiag	168	324	420	636	637
Maple products	3,483	4,011	3,333	2,902	3,106
Tobacco	1,575	1,315	1,726	1,826	1,469
Clover and grass seed	372	467	413	324	270
Honey	–	658	718	639	795
Totals	**244,392**	**255,631**	**285,369**	**275,707**	**286,430**
Ontario—					
Field crops	220,749	260,534	250,466	261,264	255,900
Farm animals	50,193	57,132	68,036	73,782	72,896
Wool	955	1,200	1,207	1,087	1,173
Dairy products	94,875	87,075	95,115	108,846	103,185
Fruits and vegetables	22,263	15,491	19,041	15,766	18,344
Poultry and eggs	26,785	28,584	33,570	34,235	41,296
Fur farming	238	402	477	473	473
Maple products	1,215	1,893	1,871	1,954	1,772
Tobacco	1,943	3,044	5,276	5,540	7,556
Flax fibre	166	712	454	208	321
Clover and grass seed	3,647	2,358	2,822	4,458	2,798
Honey	–	900	1,000	500	890
Totals	**423,029**	**459,325**	**479,335**	**508,113**	**506,604**
Manitoba—					
Field crops	62,717	136,025	93,191	111,937	82,280
Farm animals	7,597	10,327	11,324	10,556	13,044
Wool	73	106	108	114	168
Dairy products	13,647	11,042	9,425	9,444	11,068
Fruits and vegetables	1,702	1,240	1,700	1,542	1,609
Poultry and eggs	3,423	3,967	4,712	5,645	7,210
Fur farming	86	174	317	118	117
Clover and grass seed	61	78	44	29	195
Honey	–	195	616	528	960
Totals	**89,306**	**163,154**	**121,437**	**139,913**	**116,651**

[1] Subject to minor revision.

1.—Estimated Gross Annual Agricultural Revenue of Canada, by Provinces, 1923-1927 ("000" omitted)—concluded.

Items.	1923.	1924.	1925.	1926.	1927[2].
	$	$	$	$	$
Saskatchewan—					
Field crops	261,128	237,310	368,275	309,128	347,5
Farm animals	16,342	19,631	22,221	20,743	21,9
Wool	142	163	158	176	2
Dairy products	20,003	17,566	19,188	14,906	18,5
Fruits and vegetables	2,461	2,109	2,500	2,452	2,7
Poultry and eggs	9,477	9,083	9,334	11,778	12,4
Fur farming	5	14	32	58	
Clover and grass seed	103	130	54	54	
Honey	–	18	37	38	
Totals	**309,661**	**286,024**	**421,799**	**359,333**	**403,**
Alberta—					
Field crops	151,040	159,760	157,227	202,149	272,7
Farm animals	16,462	23,303	27,929	23,529	27,9
Wool	264	272	317	593	
Dairy products	16,031	12,584	15,424	12,274	12,6
Fruits and vegetables	1,860	1,330	1,860	1,768	1,7
Poultry and eggs	6,802	6,843	7,546	8,742	10,
Fur farming	62	145	241	197	
Clover and grass seed	58	115	121	90	
Honey	–	13	23	37	
Totals	**192,579**	**204,365**	**210,688**	**249,384**	**326,2**
British Columbia—					
Field crops	18,912	17,392	18,909	18,176	19,5
Farm animals	2,702	2,972	3,732	4,537	5,5
Wool	51	70	93	114	
Dairy products	5,959	5,066	5,703	5,898	6,5
Fruits and vegetables	13,344	10,062	9,656	9,348	8,7
Poultry and eggs	3,467	3,551	4,755	5,623	7,1
Fur farming[1]	48	64	143	102	
Tobacco	–	–	2	14	
Clover and grass seed	30	48	66	40	
Honey	–	149	140	198	2
Totals	**44,513**	**39,374**	**43,199**	**44,050**	**48,1**

[1]Including Yukon Territory.
[2]Subject to minor revision.

Table 1 shows that in 1927 the estimated agricultural revenue of Canada w $1,783,160,000, as compared with $1,683,526,000 in 1926, $1,666,100,000 in 192 $1,494,771,000 in 1924 and $1,397,085,000 in 1923. The total for 1927 shows a increase as compared with 1926 of $99,634,000 or 5·92 p.c. The increase was co mon to all items except wool and clover and grass seed.

Comparing the provinces for 1927, Ontario leads with a total value of $506,60 000, and the provinces next in order are:—Saskatchewan, $403,915,000; Alber $326,257,000; Quebec, $286,430,000; Manitoba, $116,651,000; British Columb $48,166,000; Nova Scotia, $39,233,000; New Brunswick, $33,892,000; and Pri Edward Island, $22,012,000.

Wealth.—Table 2 shows approximately, by provinces, the gross agricultural wealth of the Dominion in 1927, with totals for 1923-26.

2.—Estimated Gross Agricultural Wealth of Canada, by Provinces, 1927, with Totals for 1923-1926. ("000" omitted)

Provinces.	Lands.	Buildings.	Implements and machinery.	Live stock.	Poultry.	Animals on fur farms.	Agricultural production.	Total.
	$	$	$	$	$	$	$	$
P.E. Island	28,476	17,289	6,870	9,445	950	3,305	22,012	88,347
Nova Scotia	49,155	51,173	10,146	19,630	879	663	39,233	170,879
New Brunswick	61,112	45,158	13,545	16,592	1,103	957	33,892	172,359
Quebec	546,666	285,530	111,940	142,871	8,724	1,569	286,430	1,383,730
Ontario	808,124	491,330	169,954	261,673	22,005	1,988	506,604	2,261,678
Manitoba	315,245	113,005	67,848	65,107	4,187	660	116,651	682,703
Saskatchewan	877,042	216,398	176,676	140,925	6,245	373	403,915	1,821,574
Alberta	523,221	121,765	98,814	118,917	5,483	782	326,257	1,195,239
British Columbia	107,020	41,036	9,379	23,979	3,382	710	48,166	233,672
Total, 1927	**3,316,061**	**1,382,684**	**665,172**	**799,139**	**52,958**	**11,007**	**1,783,160**[1]	**8,010,181**[1]
Total, 1926	**3,316,061**	**1,382,684**	**665,172**	**696,472**	**51,037**	**11,068**	**1,683,526**	**7,806,020**
Total, 1925	**3,316,061**	**1,382,684**	**665,172**	**704,287**	**47,171**	**9,898**	**1,666,100**	**7,791,373**
Total, 1924	**3,316,061**	**1,382,684**	**665,172**	**641,144**	**42,434**	**8,389**	**1,494,771**	**7,550,655**
Total, 1923	**3,316,061**	**1,382,684**	**665,172**	**613,260**	**39,840**	**6,308**	**1,397,085**	**7,420,410**

[1] Subject to revision.

The values of buildings, lands, implements and machinery for the census year 1921 were considerably more than the values previously used in these calculations, which were based upon the census of 1911. The increase for the three items during the decade amounted to $1,115,986,000. There has, however, undoubtedly been a fall in the value of land during the last six years, consequent upon the fall in the prices of agricultural products and live stock, and there may also have been some change in the values of buildings, machinery and implements, but to what extent it is impossible to state. The estimates collected from crop correspondents of the value per acre of land, including buildings, show a drop in the value of land per acre from $40 in 1921 to $38 in 1927, resulting from decreases in most of the provinces. The rates of change thus shown have been applied to the census data, with the result that the census figure of $3,702,370,000, the value of land in 1921, becomes $3,316,061,000 as the estimated value in 1923 to 1927.

Altogether, the gross agricultural wealth of Canada for 1927 may be estimated at $8,010,181,000, as compared with $7,806,020,000 in 1926. The increase of $204,161,000 or 2·62 p.c. is chiefly due to increased values of live stock and agricultural production.

Subsection 2.—Acreage, Yield, Quality and Value of Field Crops.

The Chief Field Crops of the Last Twenty Years.—In Table 3 will be found a summary statement of the acreage, yield and value of the field crops of wheat, oats, barley, rye, buckwheat, flaxseed, potatoes, hay and clover and alfalfa for the last 20 years. From this summary table may be seen in perspective the recent growth of Canadian agriculture. In particular may be noted the quadrupling of the wheat crop, the almost doubling of the oat crop, the tripling of the barley crop, the nine-fold increase in the rye crop, the doubling of the flaxseed crop, the 50 p.c. addition to the hay and clover crop and the nine-fold increase in the alfalfa crop, within the past 20 years. On the other hand, the acreage and yield of the potato crop has remained about the same throughout the period, presumably

because this crop is produced for home consumption. Those who desire figures for earlier years will find certain information on acreage, yield and value on page xxvi of the Introduction.

3.—Area, Yield and Value of Principal Crops grown in Canada, 1908-1928.

Crop and year.	Area.	Yield per acre.	Total yield.	Average price per bush.	Total value.
	000 acres.	bush.	000 bush.	$	000 $
Wheat—					
1908	6,610	17·0	112,434	0·81	91,2
1909	7,750	21·5	166,755	0·85	151,3
1910	8,865	15·0	132,078	0·79	105,8
1911	11,101	20·8	230,924	0·64	148,1
1912	10,997	20·5	224,159	0·62	19,6
1913	11,015	21·0	231,717	0·67	156,4
1914	10,294	15·8	161,280	1·22	196,4
1915	15,109	26·0	393,543	0·91	356,8
1916	15,370	17·0	262,781	1·31	344,0
1917	14,756	15·8	233,743	1·94	453,0
1918	17,354	11·0	189,075	2·02	381,6
1919	19,126	10·0	193,260	2·37	457,7
1920	18,232	14·5	263,189	1·62	427,3
1921	23,261	13·0	300,858	0·81	242,9
1922	22,423	17·8	399,786	0·85	339,4
1923	21,886	21·7	474,199	0·67	316,9
1924	22,056	11·9	262,097	1·22	320,3
1925	20,790	19·0	395,475	1·23	487,7
1926	22,896	17·8	407,136	1·09	442,2
1927	22,460	21·4	479,665	1·00	477,7
1928	24,119	22·1	533,572	0·80	426,0
Oats—					
1908	7,911	31·8	250,377	0·39	96,4
1909	9,303	38·0	353,466	0·35	122,3
1910	8,656	28·3	245,393	0·35	86,7
1911	9,631	38·0	365,179	0·36	132,9
1912	9,966	39·3	391,629	0·32	126,3
1913	10,434	38·8	404,669	0·32	128,8
1914	10,062	31·3	313,078	0·48	151,8
1915	11,556	40·3	464,954	0·36	171,0
1916	10,996	37·3	410,211	0·51	210,9
1917	13,313	30·3	403,010	0·69	277,0
1918	14,790	28·8	426,313	0·78	331,3
1919	14,952	26·3	394,387	0·80	317,0
1920	15,850	33·5	530,710	0·53	280,1
1921	16,949	25·3	426,233	0·34	146,3
1922	14,541	33·8	491,230	0·38	185,4
1923	14,388	39·3	563,998	0·33	184,8
1924	14,491	28·0	405,976	0·49	200,6
1925	12,556	32·0	402,296	0·42	167,1
1926	12,741	30·1	383,416	0·48	184,0
1927	13,240	33·2	439,713	0·51	225,8
1928	13,137	34·4	452,153	0·47	210,9
Barley—					
1908	1,746	26·8	46,762	0·46	21,3
1909	1,865	29·8	55,398	0·46	25,4
1910	1,283	22·5	28,848	0·50	14,6
1911	1,522	29·3	44,415	0·56	24,7
1912	1,581	31·3	49,398	0·45	22,3
1913	1,613	30·0	48,319	0·42	20,1
1914	1,496	24·3	36,201	0·60	21,5
1915	1,718	31·5	54,017	0·52	27,9
1916	1,803	23·8	42,770	0·82	35,0
1917	2,392	23·0	55,058	1·08	59,6
1918	3,154	24·5	77,287	1·00	73,7
1919	2,646	21·3	56,389	1·23	69,3
1920	2,552	24·8	63,311	0·83	52,8
1921	2,796	21·3	59,709	0·47	28,2
1922	2,600	27·8	71,865	0·46	33,3
1923	2,785	27·8	76,998	0·42	32,5
1924	3,407	26·1	88,807	0·70	61,7
1925	3,524	24·7	87,118	0·53	46,0
1926	3,647	27·4	99,987	0·52	52,0
1927	3,506	27·7	96,938	0·66	64,1
1928	4,881	27·9	136,391	0·56	76,1

3.—Area, Yield and Value of Principal Crops grown in Canada, 1908-1928—con.

Crop and year.	Area.	Yield per acre.	Total yield.	Average price per bush.	Total value.
	000 acres.	bush.	000 bush.	$	000 $
Rye—					
1908	100	17·0	1,711	0·74	1,262
1909	91	18·8	1,715	0·73	1,254
1910	115	13·5	1,542	0·67	1,038
1911	131	19·0	2,492	0·76	1,900
1912	127	19·0	2,428	0·72	1,755
1913	119	19·3	2,300	0·66	1,524
1914	111	18·0	2,017	0·83	1,679
1915	122	20·5	2,486	0·77	1,922
1916	148	19·5	2,876	1·11	3,196
1917	212	18·3	3,857	1·62	6,267
1918	555	15·3	8,504	1·49	12,729
1919	753	13·5	10,207	1·40	14,240
1920	650	17·5	11,306	1·33	15,086
1921	1,842	11·8	21,455	0·72	15,399
1922	2,105	15·5	32,373	0·58	18,703
1923	1,448	16·0	23,232	0·49	11,340
1924	891	15·4	13,751	0·99	13,679
1925	643	14·2	9,159	0·77	7,048
1926	754	16·2	12,179	0·77	9,431
1927	743	20·1	14,951	0·81	12,256
1928	840	17·4	14,618	0·79	11,491
Buckwheat—					
1908	291	24·5	7,153	0·59	4,215
1909	282	27·8	7,806	0·58	4,554
1910	358	19·8	7,103	0·57	4,053
1911	372	22·8	8,441	0·64	5,422
1912	399	26·5	10,517	0·62	6,544
1913	381	22·0	8,372	0·64	5,320
1914	354	24·3	8,626	0·72	6,213
1915	344	23·0	7,866	0·75	5,913
1916	342	17·5	5,976	1·07	6,375
1917	396	18·0	7,149	1·46	10,443
1918	548	20·8	11,376	1·58	18,018
1919	445	23·5	10,551	1·50	15,831
1920	378	23·8	8,995	1·28	11,513
1921	361	22·8	8,230	0·89	7,285
1922	431	22·5	9,701	0·84	8,141
1923	440	22·3	9,744	0·84	8,192
1924	442	25·8	11,412	0·89	10,149
1925	474	22·2	10,546	0·85	8,965
1926	457	21·6	9,882	0·87	8,598
1927	471	23·1	10,890	0·89	9,727
1928	503	21·7	10,899	0·93	10,128
Flaxseed—					
1908	139	10·8	1,499	0·97	1,457
1909	138	16·0	2,213	1·25	2,761
1910	582	7·3	4,245	2·09	8,870
1911	879	11·5	10,076	1·51	15,130
1912	2,022	13·0	26,130	0·90	23,608
1913	1,553	11·3	17,539	0·97	17,084
1914	1,084	6·8	7,175	1·03	7,368
1915	463	13·3	6,114	1·51	9,210
1916	658	12·5	8,260	2·04	16,890
1917	920	6·5	5,935	2·65	15,737
1918	1,068	5·8	6,055	3·13	18,951
1919	1,093	5·0	5,473	4·13	22,610
1920	1,428	5·5	7,998	1·94	15,502
1921	533	7·8	4,112	1·44	5,938
1922	565	8·9	5,009	1·72	8,639
1923	630	11·3	7,140	1·77	12,644
1924	1,277	7·6	9,695	1·94	18,849
1925	843	7·4	6,237	1·85	11,542
1926	738	8·1	5,995	1·62	9,688
1927	476	10·3	4,885	1·55	7,562
1928	378	9·6	3,614	1·59	5,758
Potatoes—		cwt.	cwt.	per cwt.	
1908	540	79·2	44,274	0·78	34,819
1909	514	115·8	59,452	0·62	36,399
1910	465	71·6	33,277	0·82	27,427

3.—Area, Yield and Value of Principal Crops grown in Canada, 1908-1928—concluded

Crop and year.	Area.	Yield per acre.	Total yield.	Average price per cwt.	Total value.
	000 acres.	cwt.	000 cwt.	$	000 $
Potatoes—concluded.					
1911	479	89·3	42,743	0·98	42,[illegible]
1912	484	105·3	50,931	0·73	37,[illegible]
1913	474	99·5	47,126	0·82	38,[illegible]
1914	476	108·0	51,403	0·82	41,[illegible]
1915	486	74·6	36,212	1·00	36,[illegible]
1916	473	80·4	37,978	1·35	50,[illegible]
1917	657	73·0	47,935	1·69	80,[illegible]
1918	735	85·2	62,608	1·63	102,[illegible]
1919	819	92·0	75,345	1·58	118,[illegible]
1920	785	102·4	80,299	1·62	129,[illegible]
1921	702	91·8	64,408	1·28	82,[illegible]
1922	684	81·6	55,745	0·90	50,[illegible]
1923	561	99·0	55,497	1·02	56,[illegible]
1924	562	100·9	56,648	0·85	47,[illegible]
1925	522	77·0	40,217	2·06	82,[illegible]
1926	523	89·7	46,937	1·47	69,[illegible]
1927	572	81·2	46,458	1·17	54,[illegible]
1928	599	83·8	50,195	0·81	40,[illegible]
Hay and clover—		tons	tons	per ton	
1908	8,211	1·40	11,450	9·96	121,[illegible]
1909	8,210	1·45	8,877	11·14	132,[illegible]
1910	8,289	1·25	10,406	8·66	90,11[illegible]
1911	8,617	1·60	13,989	11·64	162,84[illegible]
1912	8,276	1·45	12,117	11·09	134,33[illegible]
1913	8,169	1·35	10,859	11·48	124,69[illegible]
1914	7,997	1·30	10,259	14·23	145,99[illegible]
1915	7,777	1·35	10,612	14·37	152,53[illegible]
1916	7,821	1·85	14,527	11·60	168,54[illegible]
1917	8,225	1·65	13,685	10·33	141,37[illegible]
1918	10,545	1·40	14,772	16·25	241,27[illegible]
1919	10,595	1·55	16,348	20·72	338,7[illegible]
1920	10,379	1·30	13,339	26·10	348,16[illegible]
1921	10,615	1·07	11,366	23·56	267,76[illegible]
1922	10,002	1·45	14,488	13·46	194,95[illegible]
1923	9,726	1·55	14,845	10·97	162,88[illegible]
1924	9,875	1·51	14,960	11·07	165,58[illegible]
1925	9,563	1·56	14,962	10·35	154,88[illegible]
1926	9,516	1·48	14,058	12·13	170,47[illegible]
1927	10,227	1·70	17,370	10·41	180,8[illegible]
1928	10,321	1·60	16,515	10·37	171,22[illegible]
Alfalfa—					
1911	97	2·35	228	11·51	2,62[illegible]
1912	101	2·85	286	12·00	3,43[illegible]
1913	94	2·50	238	11·85	2,81[illegible]
1914	90	2·40	218	14·17	3,09[illegible]
1915	98	2·65	261	12·68	3,30[illegible]
1916	99	2·90	287	10·69	3,06[illegible]
1917	110	2·40	262	11·59	3,04[illegible]
1918	196	2·25	446	17·84	7,96[illegible]
1919	227	2·20	494	21·85	10,8[illegible]
1920	239	2·45	584	23·79	13,88[illegible]
1921	264	2·50	662	19·95	13,21[illegible]
1922	306	2·65	806	12·77	10,29[illegible]
1923	391	2·65	1,029	11·58	11,91[illegible]
1924	474	2·65	1,257	11·70	14,70[illegible]
1925	637	2·48	1,582	12·72	20,1[illegible]
1926	837	2·46	2,061	13·30	27,4[illegible]
1927	910	2·37	2,157	12·03	25,9[illegible]
1928	854	2·35	2,010	11·51	23,1[illegible]

Total Areas and Values, 1922-1927.—Table 4 shows for Canada and th provinces the total estimated areas and values of field crops for the years 1922 t 1927[1], and Table 5 the field crops of Canada, compared as to quantity and valu for 1926 and 1927.

[1]For earlier figures see pp. xxvi-xxvii of the introduction to this volume.

4.—Total Areas and Values of Field Crops in Canada, 1922-1927.

Provinces.	1922.	1923.	1924.	1925.	1926.	1927.
	acres.	acres.	acres.	acres.	acres.	acres.
Canada	**57,189,681**	**56,444,816**	**57,852,550**	**53,108,145**	**56,097,836**	**56,172,310**
P.E. Island	543,069	507,979	527,758	523,484	519,693	533,463
Nova Scotia	789,096	682,538	698,013	691,738	712,027	702,127
New Brunswick	1,205,817	909,945	859,412	900,033	891,631	889,277
Quebec	7,435,300	6,650,158	6,736,300	6,828,700	6,867,200	6,877,900
Ontario	10,258,613	10,296,961	10,264,614	10,364,317	10,434,401	10,305,045
Manitoba	6,747,240	6,719,522	6,818,045	5,790,004	6,199,008	5,968,983
Saskatchewan	19,833,167	19,772,830	20,507,411	18,200,916	19,388,609	19,527,971
Alberta	10,005,623	10,530,824	11,049,683	9,450,553	10,705,948	10,971,761
British Columbia	371,756	374,059	391,314	358,398	379,319	395,783
	$	$	$	$	$	$
Canada	**962,293,200**	**899,226,200**	**995,235,900**	**1,098,303,938**	**1,104,983,100**	**1,172,643,600**
P.E. Island	10,889,800	10,173,900	11,990,400	15,416,800	17,079,500	13,420,800
Nova Scotia	24,140,400	20,505,100	16,785,800	18,885,400	22,648,600	18,597,000
New Brunswick	31,979,000	20,864,300	16,080,000	25,681,100	23,338,000	18,413,500
Quebec	165,159,600	133,137,400	139,359,000	150,253,000	139,263,000	144,273,000
Ontario	222,599,400	220,748,900	260,534,000	250,465,600	261,264,000	255,900,000
Manitoba	98,078,000	62,716,700	136,025,000	93,191,235[1]	111,937,000	82,280,000
Saskatchewan	296,227,200	261,127,900	237,310,000	368,274,521[1]	309,128,000	347,515,000
Alberta	94,946,800	151,040,000	159,759,700	157,227,282[1]	202,149,000	272,743,300
British Columbia	18,273,000	18,912,000	17,392,000	18,909,000	18,176,000	19,501,000

[1] As shown by the 1926 census of the Prairie Provinces.

5.—Field Crops of Canada, compared as to Quantity and Value, 1926 and 1927.

("000" omitted.)

Field Crops.	Actual value, 1927.	Value at prices of 1926.	Actual value, 1926.	Increase(+) or decrease (—).	Due to higher (+) or lower (—) prices.	Due to larger (+) or smaller (—) quantities.
	$	$	$	$	$	$
Fall wheat	27,544	27,671	27,073	+ 471	— 127	+ 598
Spring wheat	450,247	450,060	415,148	+ 35,099	+ 187	+ 34,912
All wheat	477,791	477,731	442,221	+ 35,570	+ 60	+ 35,510
Fall rye	9,369	8,852	7,654	+ 1,715	+ 517	+ 1,198
Spring rye	2,887	2,763	1,777	+ 1,110	+ 124	+ 986
All rye	12,256	11,615	9,431	+ 2,825	+ 641	+ 2,184
Oats	225,879	211,130	184,098	+ 41,781	+ 14,749	+ 27,032
Barley	64,193	50,471	52,059	+ 12,134	+ 13,722	— 1,588
Peas	4,959	4,889	4,610	+ 349	+ 70	+ 279
Beans	2,408	2,737	3,060	— 652	— 329	— 323
Buckwheat	9,727	9,475	8,598	+ 1,129	+ 252	+ 877
Mixed grains	27,001	24,860	22,385	+ 4,616	+ 2,141	+ 2,475
Flaxseed	7,562	7,894	9,688	— 2,126	— 332	— 1,794
Corn for husking	4,212	4,244	7,780	— 3,568	— 32	— 3,236
Potatoes	54,341	68,497	69,204	— 14,863	— 14,156	— 707
Turnips, mangolds, etc	17,282	22,301	20,497	— 3,215	— 5,019	+ 1,804
Hay and clover	180,835	210,630	170,473	+ 10,362	— 29,795	+ 40,157
Grain hay	39,359	39,359	48,154	— 8,795	—	— 8,795
Alfalfa	25,946	28,693	27,414	— 1,468	— 2,747	+ 1,279
Fodder corn	15,849	17,323	21,926	— 6,077	— 1,474	— 4,603
Sugar beets	3,044	2,522	3,386	— 342	+ 522	— 864
Total	**1,172,644**	**1,194,371**	**1,104,984**	**+ 67,660**	**— 21,727**	**+ 89,387**
				p.c.	p.c.	p.c.
Increase or decrease	–	–	–	+ 6·12	— 1·97	+ 8·09

In Table 6 are given statistics of acreage, yield, quality and value of each of the field crops grown in 1927 and 1928, together with five-year averages for 1923-27.

6.—Area, Yield, Quality and Value of Principal Field Crops in Canada, 1927-1928 and Five-Year Average, 1923-1927[1].

Field Crops.	Area.	Yield per acre.	Total Yield.	Weight per measured bushel.	Average price per bushel.	Total Value.
	acres.	bush.	bush.	lb.	$	$
Canada—						
Fall wheat.....1927	853,258	26·1	22,266,000	58·96	1·24	27,544,000
1928	819,028	24·5	20,054,000	59·67	1·15	23,009,000
Average.....1923-27	812,677	26·8	21,796,940	60·01	1·19	25,842,880
Spring wheat.....1927	21,606,896	21·2	457,399,000	58·74	0·98	450,247,000
1928	23,300,112	22·0	513,517,700	59·75	0·78	403,004,000
Average.....1923-27	21,204,813	18·0	381,917,400	59·14	1·00	383,178,100
All wheat.....1927	22,460,154	21·4	479,665,000	58·75	1·00	477,791,000
1928	24,119,140	22·1	533,571,700	59·74	0·80	426,013,000
Average.....1923-27	22,017,490	18·3	403,714,340	59·23	1·01	409,020,980
Oats.....1927	13,239,963	33·2	439,712,700	33·76	0·51	225,879,000
1928	13,136,516	34·4	452,153,000	34·62	0·47	210,956,000
Average.....1923-27	13,483,215	32·6	439,079,640	34·54	0·44	192,538,600
Barley.....1927	3,505,713	27·7	96,938,000	47·20	0·66	64,193,000
1928	4,880,740	27·9	136,391,400	47·04	0·56	76,112,000
Average.....1923-27	3,373,824	26·7	89,969,640	47·25	0·57	51,319,360
Fall rye.....1927	568,332	20·4	11,574,000	55·83	0·81	9,369,000
1928	599,158	17·3	10,378,000	55·54	0·78	8,096,000
Average.....1923-27	712,240	16·6	11,833,120	55·31	0·74	8,703,066
Spring rye.....1927	174,979	19·3	3,376,600	55·80	0·85	2,886,500
1928	240,407	17·6	4,239,700	55·18	0·80	3,395,000
Average.....1923-27	183,565	15·4	2,821,020	55·32	0·73	2,047,449
All rye.....1927	743,311	20·1	14,950,600	55·80	0·81	12,255,500
1928	839,565	17·4	14,617,700	55·44	0·79	11,491,000
Average.....1923-27	895,805	16·4	14,654,140	55·30	0·73	10,750,500
Peas.....1927	150,800	18·5	2,794,900	59·86	1·76	4,958,800
1928	154,469	16·8	2,588,300	59·42	1·85	4,786,000
Average.....1923-27	165,530	18·1	2,995,740	59·78	1·73	5,169,620
Beans.....1927	66,778	15·5	1,037,300	59·80	2·32	2,408,300
1928	70,276	16·7	1,170,500	59·82	3·57	4,184,000
Average.....1923-27	70,985	16·7	1,186,660	59·34	2·60	3,084,969
Buckwheat.....1927	471,333	23·1	10,890,000	47·43	0·89	9,727,000
1928	502,729	21·7	10,899,300	47·45	0·93	10,128,000
Average.....1923-27	457,038	23·0	10,494,760	47·45	0·87	9,126,060
Mixed grains.....1927	1,004,507	37·5	37,621,500	42·53	0·72	27,001,000
1928	1,107,135	35·3	39,130,000	42·15	0·71	27,672,000
Average.....1923-27	902,441	36·9	33,269,600	42·94	0·67	22,219,740
Flaxseed.....1927	475,852	10·3	4,884,600	55·42	1·55	7,562,000
1928	378,081	9·6	3,614,000	55·16	1·59	5,758,000
Average.....1923-27	792,676	8·6	6,790,120	55·08	1·78	12,056,940
Corn for husking.....1927	131,626	32·4	4,262,000	54·66	0·99	4,212,000
1928	139,192	37·7	5,241,000	53·19	1·12	5,860,000
Average.....1923-27	238,572	40·4	9,649,060	54·60	1·01	9,724,740
		cwt.	cwt.		per cwt.	
Potatoes.....1927	572,373	81·2	46,458,000	–	1·17	54,341,000
1928	599,063	83·8	50,195,000	–	0·81	40,874,000
Average.....1923-27	548,083	89·7	49,151,380	–	1·26	62,151,740
Turnips, mangolds, etc.....1927	197,177	188·9	37,248,000	–	0·46	17,282,000
1928	202,447	215·5	43,623,000	–	0·47	20,700,000
Average.....1923-27	197,340	189·0	37,292,300	–	0·53	19,662,700
		tons	tons		per ton	
Hay and clover.....1927	10,226,895	1·70	17,370,000	–	10·41	180,835,000
1928	10,320,863	1·60	16,515,000	–	10·37	171,225,000
Average.....1923-27	9,781,301	1·56	15,239,080	–	10·95	166,932,680
Grain hay.....1927	1,560,845	2·49	3,893,000	–	10·11	39,359,000
1928	1,614,305	2·49	4,021,000	–	10·08	40,540,000
Average.....1923-27	1,874,637	2·39	4,482,620	–	8·47	37,949,360
Alfalfa.....1927	910,156	2·37	2,157,300	–	12·03	25,946,000
1928	853,818	2·35	2,009,500	–	11·51	23,138,000
Average.....1923-27	649,620	2·49	1,617,220	–	12·38	20,019,760
Fodder corn.....1927	471,569	7·52	3,547,500	–	4·47	15,849,000
1928	440,898	8·32	3,666,400	–	4·69	17,204,000
Average.....1923-27	575,859	8·26	4,758,100	–	4·65	22,134,220
Sugar beets.....1927	44,103	8·87	391,000	–	7·79	3,044,000
1928	51,294	8·44	433,000	–	7·25	3,140,000
Average.....1923-27	38,608	9·97	384,880	–	6·70	2,576,780

[1]Provincial figures, formerly included in this table, have been forced out by the pressure on our space. They will be found in the Monthly Bulletin of Agricultural Statistics for January, 1929.

Acreage under Pasture.—Table 7 gives the estimated acreage under pasture in Canada, by provinces, for the years 1921 to 1927.

7.—Estimated Acreage under Pasture in Canada, 1921-1927.

Provinces.	1921.	1922.	1923.	1924.	1925.	1926.	1927.
	acres.	acres.	acres.	acres.	acres.	acres.	acres.
P.E. Island	250,098	241,598	237,576	248,760	237,450	242,157	249,637
Nova Scotia	955,030	935,916	816,934	829,097	842,695	870,305	843,766
New Brunswick	613,030	553,312	461,524	470,455	481,488	467,081	492,425
Quebec	4,016,725	3,630,678	3,602,472	3,600,000	3,636,000	3,672,360	3,745,807
Ontario	3,401,998	3,401,033	3,472,642	3,317,532	3,193,941	3,077,424	3,012,786
Manitoba	–	198,955	199,604	240,001	238,483	222,039	240,485
Saskatchewan	678,815	472,143	456,691	333,393	333,393	382,403	426,927
Alberta	–	202,356	196,239	230,725	309,589	288,962	285,719
British Columbia	61,508	58,577	89,419	71,756	63,484	53,719	56,141
Indian Reserves	–	–	34,042	35,992	28,111	31,990	36,601
Totals	**9,977,204**	**9,694,568**	**9,567,143**	**9,377,691**	**9,364,634**	**9,308,440**	**9,390,294**

Average Yields per Acre.—Table 8 gives by provinces and for the years 1920 to 1927 the average yields per acre of the various field crops, together with the ten-year average yields for the period 1918-1927.

8.—Annual Average Yields per acre of Field Crops for Canada and by Provinces from 1920 to 1927, with Decennial Averages for the years 1918-1927.

Field Crops.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	Ten-year average 1918-27.
	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.
Canada—									
Fall wheat	24·0	21·5	21·3	23·8	28·8	30·1	25·8	26·1	24·7
Spring wheat	14·0	12·8	17·8	20·8	11·3	18·6	17·5	21·2	15·5
All wheat	14·5	13·0	17·8	21·7	11·9	19·0	17·8	21·4	15·8
Oats	33·5	25·3	33·8	39·3	28·0	32·0	30·1	33·2	30·9
Barley	24·8	21·3	27·8	27·8	26·1	24·7	27·4	27·7	25·4
Rye	17·5	11·8	15·5	16·0	15·4	14·2	16·2	20·1	16·4
Peas	19·0	14·3	18·0	17·0	18·0	18·6	18·2	18·5	17·4
Beans	17·5	17·5	16·3	16·5	16·6	18·4	16·2	15·5	16·5
Buckwheat	23·8	22·8	22·5	22·3	25·8	22·2	21·6	23·1	22·8
Mixed grains	40·0	25·8	35·5	35·3	37·7	38·5	35·5	37·5	35·5
Flaxseed	5·5	7·8	8·9	11·3	7·6	7·4	8·1	10·3	7·2
Corn for husking	49·3	50·3	43·3	42·8	40·7	44·2	37·3	32·4	46·8
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Potatoes	102·4	91·8	81·6	99·0	100·9	77·0	89·7	81·2	90·4
Turnips, etc	200·5	173·8	196·1	196·0	205·1	182·2	172·9	188·9	188·0
	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.
Hay and clover	1·3	1·1	1·5	1·6	1·5	1·6	1·5	1·7	1·5
Fodder corn	9·6	10·8	9·0	8·1	8·0	9·1	8·8	7·5	9·0
Sugar beets	11·4	9·5	9·2	9·6	9·3	10·6	11·2	8·9	10·0
Alfalfa	2·5	2·5	2·7	2·7	2·7	2·5	2·5	2·4	2·5
Prince Edward Island—	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.
Spring wheat	12·0	16·8	21·3	15·3	18·7	18·0	18·0	14·4	17·4
Oats	27·8	27·0	35·8	35·0	29·9	32·7	34·7	27·2	31·9
Barley	24·5	23·3	29·0	27·5	26·5	26·6	32·9	24·0	27·1
Peas	16·5	23·5	21·0	24·0	24·5	15·5	16·0	27·5	19·3
Buckwheat	23·5	24·8	27·3	28·8	23·4	24·4	29·3	29·3	25·0
Mixed grains	33·8	29·3	37·8	41·3	33·4	33·3	36·2	31·3	36·2
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt	cwt.	cwt.
Potatoes	102·0	97·0	74·8	87·0	155·4	113·2	131·9	90·5	102·7
Turnips, etc	241·0	285·2	285·0	250·0	237·2	261·1	201·8	243·3	251·7
	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.
Hay and clover	1·3	0·8	1·5	1·4	1·5	1·5	1·7	1·5	1·4
Fodder corn	8·0	10·0	7·5	5·7	6·3	7·9	5·0	9·3	7·6
Nova Scotia—	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.
Spring wheat	19·5	15·5	20·3	18·8	18·1	17·9	16·8	18·1	19·3
Oats	30·3	28·8	33·3	34·3	33·3	33·1	33·8	33·4	33·3
Barley	26·0	23·0	27·3	29·0	26·1	27·6	27·1	27·3	27·7
Rye	15·0	14·3	20·3	18·8	18·6	16·0	20·0	13·0	20·2

8.—Annual Average Yields per acre of Field Crops for Canada and by Provinces from 1920 to 1927, with Decennial Averages for the years 1918-1927—continued.

Field Crops.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	Ten-year average 1918-27.
	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.
Nova Scotia—concluded.									
Peas	20·5	16·8	22·0	18·5	19·3	24·4	20·0	16·7	19·
Beans	18·5	19·3	19·0	17·3	19·2	17·9	15·8	13·4	16·4
Buckwheat	22·3	20·5	24·0	23·8	22·8	21·5	23·2	21·1	23·0
Mixed grain	32·5	30·0	30·5	34·3	32·1	33·3	31·1	32·3	31·2
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Potatoes	122·3	98·3	97·1	120·0	107·1	92·2	105·8	84·7	104·4
Turnips, etc	215·9	247·5	215·6	203·0	234·4	245·0	220·2	198·8	226·6
	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.
Hay and clover	1·5	1·4	1·6	1·8	1·6	1·8	1·6	1·6	1·6
Fodder corn	8·0	6·5	7·6	10·0	7·3	10·5	8·3	9·0	8·8
New Brunswick—	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.
Spring wheat	15·8	15·3	17·5	19·0	14·2	16·9	16·5	14·4	17·2
Oats	29·5	25·0	30·8	31·0	28·8	30·2	25·0	25·7	28·9
Barley	23·8	17·0	25·0	29·8	30·0	25·4	20·8	23·0	24·2
Rye	14·0	17·5	19·0	30·0	26·0	16·0	14·9	20·0	18·7
Peas	15·0	12·8	14·3	15·3	17·0	12·4	12·0	18·3	14·5
Beans	16·3	12·8	18·0	14·8	19·6	15·5	14·3	14·5	16·0
Buckwheat	22·8	22·3	25·0	25·0	26·2	25·7	20·7	20·2	23·3
Mixed grains	29·8	23·5	31·0	29·0	32·4	28·3	31·3	23·0	29·7
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Potatoes	118·8	129·8	98·5	132·8	155·8	105·8	142·5	89·5	113·5
Turnips, etc	176·5	174·8	198·7	194·0	213·9	182·7	211·6	173·6	186·3
	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.
Hay and clover	1·2	0·9	1·5	1·2	1·1	1·7	1·5	1·3	1·3
Fodder corn	8·0	7·0	7·5	10·0	9·0	10·2	9·5	8·3	7·7
Quebec—	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.
Spring wheat	17·0	15·3	15·8	16·0	16·4	17·5	17·1	17·2	16·6
Oats	30·3	21·3	27·8	26·8	27·7	29·1	26·8	28·4	27·1
Barley	25·3	21·3	22·8	23·3	23·7	24·0	23·5	24·7	23·5
Rye	18·8	17·3	15·5	15·0	15·0	18·3	15·9	17·5	16·8
Peas	17·0	14·8	14·3	15·3	15·4	15·5	15·6	15·8	15·4
Beans	18·0	18·8	17·0	18·8	16·7	16·8	17·5	16·1	17·7
Buckwheat	25·8	23·3	22·5	21·8	24·3	23·0	22·8	23·5	23·6
Mixed grains	29·3	24·0	26·8	27·3	27·4	27·5	27·0	27·1	27·6
Flaxseed	11·5	11·5	10·6	8·7	8·5	8·8	11·2	11·4	10·6
Corn for husking	29·8	29·5	28·0	23·0	27·3	26·7	30·5	21·7	28·1
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Potatoes	111·3	97·5	82·4	118·8	105·3	70·4	92·3	87·5	97·6
Turnips, etc	164·7	159·5	158·2	193·3	161·1	108·3	145·3	152·0	155·8
	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.
Hay and clover	1·3	1·0	1·4	1·5	1·5	1·6	1·4	1·6	1·4
Fodder corn	8·0	9·0	7·3	8·6	9·4	9·2	8·0	8·0	8·5
Alfalfa	2·4	2·2	1·5	2·2	1·9	2·1	2·0	2·3	2·1
Ontario—	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.
Fall wheat	24·3	22·0	21·9	23·1	29·6	30·5	26·0	25·9	25·4
Spring wheat	16·8	12·5	16·9	17·4	19·2	21·5	18·8	20·1	18·3
All wheat	22·3	20·1	21·3	22·4	28·3	29·3	25·0	25·1	23·9
Oats	44·9	23·4	38·2	23·9	39·5	41·6	33·8	37·9	36·2
Barley	34·4	22·0	32·2	34·9	33·2	34·2	32·2	33·5	31·4
Rye	17·7	14·5	16·4	16·3	18·2	18·1	17·4	17·8	16·7
Peas	20·2	13·6	19·7	17·3	18·8	19·5	19·2	19·3	18·3
Beans	16·7	16·1	15·6	15·4	16·5	18·9	15·8	15·4	15·7
Buckwheat	22·3	22·7	21·6	21·8	26·8	21·6	21·2	23·6	22·4
Mixed grains	44·2	26·2	38·5	36·8	40·9	41·4	37·1	39·9	38·4
Flaxseed	10·7	8·9	10·7	10·2	11·8	12·6	9·8	9·6	10·4
Corn for husking	53·0	54·0	46·5	45·0	42·3	46·9	38·4	35·4	50·3
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Potatoes	92·0	56·3	70·7	69·8	88·6	57·6	64·5	58·2	68·4
Turnips, etc	242·2	175·7	222·6	207·0	224·4	195·5	172·6	206·1	205·4
	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.
Hay and clover	1·3	1·1	1·6	1·6	1·6	1·5	1·6	1·8	1·5
Fodder corn	10·4	11·4	10·1	8·9	9·9	9·7	9·5	7·6	9·4
Sugar beets	11·4	9·5	9·2	9·6	9·3	11·1	11·3	8·7	10·1
Alfalfa	2·5	2·6	2·8	2·7	2·8	2·5	2·5	2·3	2·7

3.—Annual Average Yields per acre of Field Crops for Canada and by Provinces from 1920 to 1927, with Decennial Averages for the years 1918-1927—concluded.

Field Crops.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	Ten-year average 1918-27.
Manitoba—	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.
Spring wheat	13·9	11·2	19·3	11·3	16·9	17·7	22·6	14·0	15·5
Oats	30·8	22·3	40·3	32·0	36·2	30·9	31·9	16·7	30·4
Barley	21·0	18·9	29·8	22·3	29·8	23·8	28·9	24·3	24·8
Rye	15·5	13·8	16·8	13·8	20·2	13·0	15·8	16·2	15·7
Peas	15·0	13·8	23·5	18·0	17·0	24·0	18·1	22·0	15·3
Mixed grains	21·3	19·9	30·0	22·5	30·0	21·6	30·1	22·2	25·2
Flaxseed	7·9	8·8	11·0	10·0	10·5	9·5	10·5	9·8	9·9
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Potatoes	53·3	92·3	96·0	68·5	69·1	84·8	83·3	83·9	83·1
Turnips, etc.	72·7	115·7	145·3	102·0	99·0	83·2	97·0	96·0	105·3
	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.
Hay and clover	1·5	1·6	1·8	1·5	1·8	1·2	1·7	2·1	1·7
Fodder corn	4·4	7·2	7·5	7·0	5·7	3·8	6·4	6·2	6·1
Alfalfa	2·0	2·6	2·6	2·5	2·2	1·7	1·9	2·4	2·2
Saskatchewan—	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.
Spring wheat	11·3	13·8	20·3	21·3	10·2	18·8	16·2	16·4	15·0
Oats	27·7	30·0	35·3	44·5	19·7	27·3	28·1	32·3	29·0
Barley	20·3	26·8	29·0	30·0	18·2	21·1	25·1	29·3	23·5
Rye	14·7	11·3	18·0	15·0	14·1	14·9	17·7	22·2	17·1
Peas	14·5	19·3	22·5	27·3	16·6	21·0	15·0	19·2	19·2
Beans	17·0	16·3	12·8	25·0	8·0	18·0	14·0	15·0	14·6
Mixed grains	33·5	30·0	29·3	32·0	22·3	19·3	26·2	26·4	27·6
Flaxseed	5·0	7·5	8·8	11·8	6·6	7·0	7·2	10·2	6·7
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Potatoes	76·5	105·9	72·3	92·3	48·0	84·3	67·6	87·2	81·9
Turnips, etc.	150·5	84·8	112·3	111·8	37·3	87·8	87·0	99·9	111·0
	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.
Hay and clover	1·4	1·6	1·4	1·7	1·4	1·1	1·4	1·9	1·4
Fodder corn	3·8	11·4	4·9	5·0	3·2	2·3	2·9	4·4	4·7
Alfalfa	2·3	3·0	1·9	2·7	1·6	1·5	2·4	2·4	2·1
Alberta—	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.
Fall wheat	18·8	17·3	13·0	28·0	14·1	14·1	18·5	27·5	19·7
Spring wheat	20·5	10·3	11·3	28·0	11·0	18·3	18·5	27·4	16·4
All wheat	20·5	10·4	11·3	28·0	11·0	18·3	18·5	27·4	16·4
Oats	37·3	22·0	22·0	50·0	24·0	30·9	30·0	45·0	30·7
Barley	26·5	20·5	16·5	38·5	25·0	25·8	22·0	30·0	24·4
Rye	21·3	9·0	10·3	19·3	10·0	11·1	12·0	20·0	15·4
Peas	17·0	24·0	11·6	22·0	18·0	15·0	15·0	18·8	18·4
Beans	17·0	19·0	14·3	11·0	8·0	15·0	14·0	15·1	14·8
Mixed grains	30·0	22·8	25·5	41·8	24·6	19·2	29·8	30·8	28·6
Flaxseed	7·0	6·0	4·0	10·4	3·7	4·7	7·0	16·0	5·6
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Potatoes	99·6	95·1	65·8	119·0	93·7	97·4	91·1	104·1	90·7
Turnips, etc.	130·9	76·8	86·8	114·0	230·0	143·3	128·8	95·6	118·2
	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.
Hay and clover	1·3	1·0	0·8	1·7	1·1	1·0	1·7	2·1	1·2
Fodder corn	4·3	10·0	5·3	4·7	2·9	2·1	2·5	5·5	4·1
Alfalfa	2·3	1·8	2·2	2·7	1·9	2·0	2·6	3·1	2·3
British Columbia—	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.	bush.
Fall wheat	19·3	27·3	23·0	25·3	24·9	24·9	29·0	28·5	25·3
Spring wheat	18·8	24·5	22·0	24·5	19·9	21·2	22·5	26·1	22·4
All wheat	19·0	25·3	22·3	24·8	21·5	22·3	24·4	26·8	23·3
Oats	34·8	48·8	43·8	51·5	37·2	36·8	36·0	50·5	42·6
Barley	37·8	34·8	29·3	33·5	30·6	29·8	29·5	34·1	32·4
Rye	25·8	22·5	20·0	22·0	15·5	14·8	11·4	21·2	19·3
Peas	26·0	25·0	25·8	24·0	25·5	23·4	22·0	24·1	24·0
Beans	20·0	21·0	20·0	23·0	28·3	20·5	22·1	22·5	20·5
Mixed grains	36·0	34·0	31·0	35·0	34·6	35·4	36·1	36·3	33·9
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Potatoes	99·0	105·6	120·0	116·0	108·0	104·8	97·0	113·0	109·8
Turnips, etc.	217·5	183·0	200·0	202·0	179·7	208·2	200·0	206·0	198·9
	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.
Hay and clover	2·0	2·3	1·7	2·3	1·8	2·0	2·1	2·2	2·0
Fodder corn	11·5	9·9	11·0	11·7	10·4	11·3	10·2	11·7	11·0
Alfalfa	3·0	3·7	3·0	3·1	2·6	2·8	2·8	3·1	3·0

Grain Yields of the Prairie Provinces.—Final figures of the acreage and yield of the grain crops of the three Prairie Provinces (Manitoba, Saskatchewan and Alberta) are given for 1927 in Table 9, together with comparative data for 1925 and 1926.

9.—Areas and Yields of Wheat, Oats, Barley, Rye and Flaxseed in the Prairie Provinces, 1925-27.

Provinces.	1925.	1926.	1927.	1925.	1926.	1927.
	acres.	acres.	acres.	bush.	bush.	bush.
Three Prairie Provinces—						
Wheat	19,759,648	21,805,314	21,425,656	367,058,000	380,765,000	454,559,300
Oats	7,274,589	7,491,888	8,205,067	211,166,000	220,450,000	269,453,000
Barley	2,940,412	3,048,413	2,838,346	68,591,000	81,917,000	75,846,000
Rye	523,155	647,460	651,130	7,015,000	10,391,000	13,287,000
Flaxseed	828,853	727,204	465,451	6,078,000	5,878,000	4,773,000
Manitoba—						
Wheat	1,902,714	2,085,547	2,195,377	33,624,000	47,133,000	30,773,000
Oats	1,623,238	1,654,474	1,544,511	50,107,000	52,778,000	25,767,000
Barley	1,645,195	1,760,563	1,512,457	39,213,000	50,880,000	36,717,000
Rye	253,492	225,482	136,368	3,288,000	3,563,000	2,215,000
Flaxseed	118,937	195,364	122,179	1,125,000	2,051,000	1,198,000
Saskatchewan—						
Wheat	12,508,962	13,558,384	12,979,279	235,472,000	219,646,000	252,500,300
Oats	3,751,840	3,921,461	4,412,556	102,297,000	110,193,000	142,526,000
Barley	858,445	872,140	925,889	18,105,000	21,891,000	27,129,000
Rye	190,831	307,499	358,215	2,850,000	5,454,000	7,941,000
Flaxseed	692,136	519,984	330,675	4,870,000	3,744,000	3,373,000
Alberta—						
Wheat	5,347,972	6,161,383	6,251,000	97,962,000	113,986,000	171,286,000
Oats	1,899,511	1,915,953	2,248,000	58,762,000	57,479,000	101,160,000
Barley	436,772	415,710	400,000	11,273,000	9,146,000	12,000,000
Rye	78,832	114,479	156,547	877,000	1,374,000	3,131,000
Flaxseed	17,780	11,856	12,597	83,000	83,000	202,000

Quality of Grain Crops, 1917-27.—Table 10 gives for Canada the average weight per measured bushel for each of the principal grain crops from 1917 to 1927, with the ten-year average for the period 1917-26.

10.—Quality of Grain Crops, as indicated by Average Weight per Measured Bushel, 1917-1927.

Crops.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	Ten-year average 1917-26.
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
Fall wheat	59·37	61·19	61·20	60·14	58·77	59·91	60·23	60·92	60·39	59·54	58·96	60·1
Spring wheat	59·48	58·69	58·53	59·07	58·10	60·31	58·55	59·14	59·70	59·55	58·74	59·1
All wheat	59·46	59·44	59·12	59·35	58·11	60·24	58·80	59·29	59·78	59·55	58·75	59·3
Oats	35·55	35·61	34·16	35·62	32·97	35·68	35·55	34·52	35·75	33·10	33·76	34·6
Barley	46·97	47·24	46·32	47·62	46·05	47·66	47·19	47·02	47·75	47·10	47·20	47·0
Rye	53·44	55·60	55·09	55·44	55·06	55·71	54·61	55·48	55·25	55·38	55·80	55·1
Peas	59·81	59·93	59·60	60·44	59·42	60·08	60·00	59·98	59·73	59·33	59·86	59·8
Beans	59·70	58·67	59·99	59·73	59·30	59·39	59·09	59·67	59·46	58·66	59·80	59·6
Buckwheat	46·49	47·41	47·23	47·95	47·35	47·80	47·80	47·53	47·35	47·15	47·43	47·4
Mixed grains	44·41	46·39	44·83	44·65	41·62	44·33	44·19	42·88	43·26	41·86	42·53	43·3
Flax	54·73	52·72	55·14	54·79	54·34	55·04	54·63	54·81	55·63	54·90	55·42	54·6
Corn for husking	56·18	53·97	–	56·45	55·56	55·45	55·29	55·15	54·19	54·72	54·66	55·1

Stocks of Grain in Canada.—Table 11 shows the quantities of grain in farmers' hands on July 31, 1928 as compared with July 31, 1926 and 1927. Adding the stocks in the elevators and flour-mills, Table 12 shows the total quantities of grain in store at the close of each of the crop years ended July 31, 1926, 1927 and 1928.

11.—Stocks of Grain in Farmers' Hands on July 31, 1928, as compared with July 31, 1926 and 1927.

Grains.	Total production in 1925.	In farmers' hands, July 31, 1926.		Total production in 1926.	In farmers' hands, July 31, 1927.		Total production in 1927.	In farmers' hands, July 31, 1928.	
	000 bush.	p.c.	bush.	000 bush.	p.c.	bush.	000 bush.	p.c.	bush.
Wheat	395,475	0·98	3,862,600	407,136	1·04	4,242,700	479,665	0·87	4,186,000
Barley	87,118	2·80	2,437,700	99,987	2·22	2,218,500	96,938	1·71	1,657,000
Oats	402,296	6·68	26,884,000	383,416	4·47	17,143,000	439,713	4·68	20,565,600
Rye	9,159	1·05	95,800	12,179	0·42	51,200	14,951	0·84	125,000
Flaxseed	6,237	0·24	15,000	5,995	0·16	9,500	4,885	0·11	5,500

12.—Stocks of Grain in Canada on July 31, 1926, 1927 and 1928.

Quantities in	Wheat.			Barley.		
	July 31, 1926.	July 31, 1927.	July 31, 1928.	July 31, 1926.	July 31, 1927.	July 31, 1928.
	bush.	bush.	bush.	bush.	bush.	bush.
Farmers' hands	3,862,600	4,242,700	4,186,000	2,437,700	2,218,500	1,657,000
Country, private and mfg. elevators in West	1,324,542	1,514,870	4,681,716	357,285	170,206	689,156
Terminal elevators in Western Inspection Division	14,796,815	26,107,984	30,379,543	2,198,962	1,703,520	574,981
Public elevators in East	9,329,851	9,456,442	18,509,083	1,366,835	477,253	122,663
Flour mills (estimated)	3,873,989	4,200,747	5,000,000	41,303	36,601	30,000
Transit	3,162,686	5,242,692	13,727,710	1,446,558	1,045,467	385,497
Totals	**36,350,483**	**50,765,435**	**76,484,052**	**7,848,643**	**5,651,547**	**3,459,297**
	Oats.			Rye.		
Farmers' hands	26,884,000	17,143,000	20,565,600	95,800	51,200	125,000
Country, private and mfg. elevators in West	976,685	550,832	1,540,680	101,881	44,853	86,323
Terminal elevators	3,519,520	2,090,277	2,266,165	481,983	1,007,771	788,220
Public elevators in East	4,483,257	1,557,483	1,911,906	70,131	111,044	505,589
Flour mills (estimated)	1,586,406	1,005,319	900,000	4,000	2,000	4,000
Transit	1,392,415	698,538	1,527,832	180,432	76,909	575,483
Totals	**38,842,283**	**23,045,449**	**28,712,183**	**934,227**	**1,293,777**	**2,084,615**
				Flaxseed.		
Farmers' hands				15,000	9,500	5,500
Country, private and mfg. elevators in West				67,383	36,993	79,596
Terminal elevators				2,441,246	1,803,643	1,038,299
Public elevators in East				–	59,955	–
Transit				70,427	146,015	172,952
Totals				**2,594,056**	**2,056,106**	**1,296,347**

Table 13 gives the results of the compilation of the returns received for wheat and wheat flour expressed as wheat for Mar. 31, 1925-28, and for oats for 1927-28.

13.—Stocks of Wheat, in Canada, Mar. 31, 1925-28, and Oats, 1927-28.

Grain in	Wheat.				Oats.	
	1925.	1926.	1927.	1928.	1927.	1928.
	bush.	bush.	bush.	bush.	bush.	bush.
Elevators and afloat	68,554,516	95,690,600	102,187,786	130,054,827	13,320,819	12,862,114
Flour mills	5,000,000	6,500,000	6,500,000	5,800,000	750,000	850,000
Transit by rail	8,304,440	8,307,507	14,739,586	19,037,020	1,951,478	3,670,721
Farmers' hands	39,225,000	48,970,000	50,955,000	64,654,000	129,992,000	161,875,000
Totals	**121,083,956**	**159,468,107**	**174,382,372**	**219,545,847**	**146,014,297**	**179,257,835**

Table 14 gives for barley, rye and flaxseed the stocks in Canada on Mar. 31, 1928, as compared with the corresponding date of the previous year.

14.—Stocks of Barley, Rye and Flaxseed in Canada, Mar. 31, 1927-28.

Grain in	Barley.		Rye.		Flaxseed.	
	1927.	1928.	1927.	1928.	1927.	1928.
	bush.	bush.	bush.	bush.	bush.	bush.
Elevators and afloat	10,365,275	8,457,146	3,780,819	4,745,439	3,421,531	2,943,00[illegible]
Flour mills	50,000	55,000	2,714	2,500	–	–
Transit by rail	1,784,083	1,432,083	589,252	896,589	274,414	173,40[illegible]
Farmers' hands	22,180,000	22,175,000	1,465,300	1,999,500	674,000	718,000
Totals	**34,379,358**	**32,119,229**	**5,838,085**	**7,644,028**	**4,369,945**	**3,834,40[illegible]**

Distribution of Wheat and Oat Crops.—The distribution of the wheat crop of Canada for each of the two years ended July 31, 1927 and 1928, is calculated in Table 15.

15.—Distribution of the Canadian Wheat Crops of 1926 and 1927.

NOTE.—Flour is expressed as wheat on the basis of one barrel of flour, weighing 196 lb., being equal to 4½ bushels of wheat. For similar calculations extending over a series of years both for wheat and oats, see the Year Book 1920, pp. 263-266, and the April issues of the Monthly Bulletin of Agricultural Statistics for each of the years 1920 to 1928.

Items.	Crop year ended July 31, 1927.	Crop year ended July 31, 1928.	Items.	Crop year ended July 31, 1927.	Crop year ended July 31, 1928.
	000 bush.	000 bush.		000 bush.	000 bush.
Carry-over Aug. 1, 1926; Aug. 1, 1927	34,818	47,839	Exports as grain	251,266	288,567
Gross production	407,136	479,665	Exports as flour	41,615	44,396
Loss in cleaning	19,117	6,732	Total exports	292,881	332,963
Grain not merchantable	12,294	27,598	Retained for seed	39,305	42,200
Net production	375,725	445,335	Milled for food	42,836	42,000
Imports	407	473	Carried over July 31, 1927 and July 31, 1928	47,839	76,484
Available for distribution	410,950	493,647	Balance fed on farms or otherwise disposed of	−11,911	–

Table 16 presents similar data in respect of oats. The bulk of this crop is consumed as food for live stock, and the table shows approximately how the remaining portion of the crop is disposed of, including the quantities exported as grain, oatmeal and rolled oats, the quantity retained for seed and the quantity milled for home consumption, representing chiefly oatmeal and rolled oats used for human food. The carry-over represents grain in the elevators, in farmers' hands, in transit, etc., and the balance is the quantity consumed in Canada for feeding to live stock, this amount being estimated at 424,550,000 bushels in 1924, 303,262,000 bushels in 1925, 394,997,000 bushels in 1926, 308,431,000 bushels in 1927 and 329,190,000 bushels in 1928.

16.—Distribution of the Canadian Oat Crops of 1926 and 1927.

Items.	Crop year ended July 31, 1927.	Crop year ended July 31, 1928.	Items.	Crop year ended July 31, 1927.	Crop year ended July 31, 1928.
	000 bush.	000 bush.		000 bush.	000 bush.
'arry-over, Aug. 1, 1926; Aug. 1, 1927	45,756	22,839	Exports as grain	6,677	7,000
Gross production	383,416	439,713	Exports as meal, etc	1,971	2,000
Grain not merchantable	50,067	58,362	Total exports	8,648	9,000
Net production	333,349	381,351	Retained as seed	33,100	35,000
mports	2,077	2,000	Milled for home consumption	8,164	8,000
vailable for distributioa	381,182	406,190	Carried over July 31, 1927-28	22,839	25,000
			Balance for home consumption as grain	308,431	329,190

Per Capita Consumption of Wheat in Canada.—According to calculations ublished in the Monthly Bulletin of Agricultural Statistics for April, 1928 (p. 126), he average per capita consumption of wheat ground for human food in Canada uring the nine years 1919 to 1927 is 4·7 bushels. The lowest average was 4·2 ushels in 1922 and the highest 6·7 bushels in 1920. In the last named year, how-ver, the grinding did not represent the year's consumption, but included a large arry-over into the next year. Details are given in Table **17.**

17.—Per Capita Consumption of Wheat, 1919-1927.

Crop years ended Aug. 31, 1919-24, and July 31, 1925-27.	Population	Wheat milled for food.	Consumption per capita.
	No.	bush.	bush.
19	8,478,546	35,500,000	4·2
20	8,631,475	58,000,000	6·7
21	8,788,483	39,450,000	4·5
22	8,908,550	37,000,000	4·2
23	9,028,240	40,000,000	4·4
24	9,150,940	41,520,000	4·5
25	9,268,700	42,139,000	4·5
26	9,390,300	42,256,000	4·5
27	9,519,000	42,836,000	4·5
Total	81,164,234	378,701,000	4·7

Subsection 3.—Farm Live Stock and Poultry.

The growth of the live stock and poultry industries in Canada from decade to cade is indicated in summary statistical form in Table **18,** while some authorita-e details will be found in the article, "The Development of Agriculture in Canada", ntributed by Dr. J. H. Grisdale to the 1921 Year Book, where it appears at pp. 2-210.

18.—Summary Statistics of the Numbers of Live Stock and Poultry in the Dominion of Canada, Censuses of 1871-1921.

Items.	1871.	1881.	1891.	1901.	1911.	1921.[2]
	No.	No.	No.	No.	No.	No.
Horses	836,743	1,059,358	1,470,572	1,577,493	2,598,958	3,610,49
Cattle	2,624,290	3,433,989	4,120,586	5,576,451	6,526,083	8,519,3
Sheep	3,155,509	3,048,678	2,563,781	2,510,239	2,174,300	3,203,9
Swine	1,366,083	1,207,619	1,733,850	2,353,828	3,634,778	3,404,3
All poultry	–	–	14,105,102[1]	17,922,658	31,793,261	50,325,2
Hens and chickens	–	–	12,696,701	16,651,337	29,773,457	48,021,64
Turkeys	–	–	458,306	584,569	863,182	1,096,7
Ducks	–	–	320,169	290,755	527,098	603,1
Geese	–	–	537,932	395,997	629,524	603,7
Hives of bees	144,791	–	199,288	189,986	180,372	185,53

[1]Includes 91,994 unspecified. [2]Includes live stock elsewhere than on farms as follows:—horses 158,74 cattle 149,995, sheep 3,499, swine 80,439, poultry 6,978,054, hives 37,425.

In Table 19 are given the numbers of each description of farm live stock b provinces for the year 1927. Numbers and values in less detail are given in Table 2 for the years 1924-27. The live stock on Indian reserves is not included in eith table.

Horses.—The estimated number of horses for 1927 shows by exception a increase of 23,743 as compared with 1926. During the last few years the numbe of horses in Canada has declined owing to the increasing use of mechanical powe in agriculture as well as on the roads and in urban transportation.

Cattle.—The estimated total number of cattle for Canada has increased in 192 as compared with 1926 by 601,359 head. It is interesting to note that the estimate number of milch cows has increased by 167,000 head since 1924, and in 1927 wa higher than in any previous year.

Sheep.—The estimated number of sheep in Canada has increased by 578,00 head between 1924 and 1927, the increase being fairly general throughout the pro inces, with the exception of Nova Scotia. From 1921 to 1924 there was a decrea of over 500,000 or about 16 p.c. in the number of sheep in Canada. From 1921 1927 there has been a gradual increase from $6 to $10 in the average value per hea and with better prices for products and improved methods, sheep-raising has aga become profitable.

Swine.—There has been a substantial increase in the estimated number of sw in 1927 as compared with 1926, although the total is still lower than in 1924. Ho ever, the numbers in 1924 constituted a record for Canada, and in spite of the ve considerable decline they still remain larger than for any year prior to 1924. Pr have been lower in 1927 than in 1926, so that the total value of the swine show decline of over $4,800,000, in spite of the increased number.

Poultry.—Poultry for the year 1927 increased only slightly as compared w 1926, but by nearly 7,000,000 or 15·75 p.c. since 1921. Increased consumption eggs, a ready market for table poultry and improved methods in poultry-keep account for the prosperous condition of the industry. The expansion since 19 has been fairly general throughout the provinces, though least rapid in Nova Sco and New Brunswick.

19.—Numbers of Farm Live Stock in Canada, by Provinces, 1927.

NOTE.—In the following table the classification of the various descriptions of farm live stock is as follows:—Horses: Stallions; mares and geldings 2 years old and over; colts and fillies under 2 years. Cattle: Bulls, 1 year old and over; milch cows (cows kept mainly for milk purposes); beef cows (cows kept for beef purposes); milk yearlings (yearlings being raised mainly for milk purposes); beef yearlings (yearlings being raised for beef purposes); calves under 1 year; all other horned cattle. Swine: Brood sows that produced young in 1927; all other swine.

Items.	P.E. Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.
	No.	No.	No.	No.	No.
Horses—					
Stallions	40	479	847	4,251	3,568
Mares	17,263	28,186	25,502	168,726	320,990
Geldings	13,442	21,690	22,091	155,754	246,639
Colts and fillies	2,145	1,955	2,902	19,835	45,939
Total	32,890	52,310	51,342	348,566	617,136
Mules	–	–	–	–	–
Cattle—					
Bulls	3,431	6,791	9,940	96,026	65,636
Milch cows	58,208	142,762	111,304	1,092,314	1,299,840
Beef cows	5,803	6,862	5,850	–	70,890
Milk yearlings	18,593	34,484	28,401	–	263,791
Beef yearlings	8,226	19,868	12,629	–	271,435
Calves	20,555	44,329	37,402	375,030	557,706
Other cattle	3,759	27,885	11,153	378,714	185,656
Total	118,575	282,981	216,679	1,942,084	2,714,954
Sheep	50,065	145,072	84,506	485,250	494,929
Lambs	39,541	112,143	68,551	376,298	461,338
Total	89,606	257,215	153,057	861,548	956,267
Swine—					
Brood sows	7,176	7,213	11,422	115,389	207,052
Other live pigs	46,489	43,710	65,885	718,140	1,676,125
Total	53,665	50,923	77,307	833,529	1,883,177
Poultry—					
Hens	820,832	856,885	895,977	7,410,000	17,378,567
Turkeys	10,155	8,070	30,244	188,000	496,164
Geese	29,183	15,562	17,649	108,000	594,593
Ducks	8,167	7,665	10,223	56,000	578,721
Total	868,337	888,182	954,093	7,762,000	19,048,045
Rabbits	–	–	–	–	–
Goats, milking	–	–	–	–	–
Goats, not milking	–	–	–	–	–

Items.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Canada.
	No.	No.	No.	No.	No.
Horses—					
Stallions	2,821	5,715	4,676	503	22,900
Mares	162,037	528,534	345,994	21,428	1,618,660
Geldings	143,558	516,130	335,210	22,775	1,477,289
Colts and fillies	38,015	110,948	76,723	4,546	303,008
Total	346,431	1,161,327	762,603	49,252	3,421,857
Mules	–	4,987	–	172	5,159
Cattle—					
Bulls	18,596	35,484	27,293	6,418	269,615
Milch cows	255,874	462,270	379,992	91,747	3,894,311
Beef cows	–	104,516	247,542	82,114	523,577
Milk yearlings	–	126,433	105,811	23,007	600,520
Beef yearlings	–	142,752	269,872	45,307	770,089
Calves	172,518	296,113	254,187	58,179	1,816,019
Other cattle	260,222	136,722	250,303	43,693	1,298,107
Total	707,210	1,304,290	1,535,000	350,465	9,172,238

19.—Numbers of Farm Live Stock in Canada, by Provinces, 1927—concluded.

Items.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Canada.
	No.	No.	No.	No.	No.
Sheep	72,418	98,081	312,045	66,604	1,808,970
Lambs	63,564	71,957	197,955	62,389	1,453,736
Total	135,982	170,038	510,000	128,993	3,262,706
Swine—					
Brood sows	37,595	81,937	102,633	6,411	576,82[illegible]
Other live pigs	349,665	534,666	640,038	43,243	4,117,96[illegible]
Total	387,260	616,603	742,671	49,654	4,694,78[illegible]
Poultry—					
Hens	3,647,425	6,886,726	5,219,408	3,056,275	46,172,[illegible]
Turkeys	311,859	370,629	451,261	23,821	1,890,[illegible]
Geese	117,475	137,054	104,314	11,325	1,135,[illegible]
Ducks	86,991	122,269	79,246	31,750	981,[illegible]
Total	4,163,750	7,516,678	5,854,229	3,123,171	50,178,[illegible]
Rabbits	–	–	–	46,775	46,77[illegible]
Goats, milking	–	–	–	3,932	3,93[illegible]
Goats, not milking	–	–	–	7,003	7,60[illegible]

20.—Estimated Numbers and Values of Farm Live Stock in Canada, by Provinces, 1924-1927.

Description.	1924.	1925.	1926.	1927.	1924.	1925.	1926.	1927.
	No.	No.	No.	No.	000 $	000 $	000 $	000 $
Canada—								
Horses	3,588,788	3,554,041	3,398,114	3,421,857	229,421	245,764	245,119	260,4
Milch cows	3,726,985	3,830,175	3,839,191	3,894,311	170,567	193,989	201,236	236,6
Other cattle	5,733,851	5,477,123	4,731,688	5,277,927	154,524	168,037	148,742	204,9
Total cattle	9,460,836	9,307,298	8,570,879	9,172,238	325,091	362,026	349,978	441,5
Sheep	2,684,743	2,755,556	3,142,476	3,262,706	24,036	26,795	31,417	32,0
Swine	5,069,181	4,426,148	4,359,582	4,694,789	62,596	69,702	69,958	65,1
Total	–	–	–	–	**641,144**	**704,287**	**696,472**	**799,1**
P. E. Island—								
Horses	33,317	32,752	32,357	32,890	2,821	2,766	2,932	2,9
Milch cows	56,479	56,295	56,947	58,208	2,367	2,807	2,822	2,9
Other cattle	61,276	56,899	57,757	60,367	1,461	1,570	1,642	1,7
Total cattle	117,755	113,194	114,704	118,575	3,828	4,377	4,464	4,7
Sheep	88,228	87,219	83,437	89,606	706	790	716	
Swine	45,335	52,114	49,711	53,665	686	1,024	765	
Total	–	–	–	–	**8,041**	**8,957**	**8,877**	**9,**
Nova Scotia—								
Horses	51,961	53,352	55,471	52,310	4,857	5,005	5,151	5,
Milch cows	132,683	137,273	146,312	142,762	5,770	6,266	7,095	7,
Other cattle	152,065	154,699	158,572	140,219	4,328	4,564	4,265	4,
Total cattle	284,748	291,972	304,884	282,981	10,098	10,830	11,360	11,
Sheep	267,913	273,499	282,458	257,215	1,750	1,976	2,022	1,
Swine	53,480	44,670	45,343	50,923	781	638	822	
Total	–	–	–	–	**17,486**	**18,449**	**19,355**	**19,**
New Brunswick—								
Horses	50,008	50,782	53,159	51,342	5,292	5,140	5,802	5,
Milch cows	107,374	111,225	116,530	111,304	3,840	5,073	5,402	5,
Other cattle	109,265	105,263	107,932	105,375	2,447	3,164	2,799	2,
Total cattle	216,639	216,488	224,462	216,679	6,287	8,237	8,201	7,
Sheep	148,310	151,349	156,616	153,057	896	1,103	1,233	1,
Swine	73,608	60,376	71,568	77,307	1,184	1,160	1,609	1,
Total	–	–	–	–	**13,659**	**15,640**	**16,845**	**16**

0.—Estimated Numbers and Values of Farm Live Stock in Canada, by Provinces, 1924-1927—concluded.

Description.	1924.	1925.	1926.	1927.	1924.	1925.	1926.	1927.
	No.	No.	No.	No.	000 $	000 $	000 $	000 $
Quebec—								
Horses	345,068	345,079	345,935	348,566	33,817	33,675	35,072	37,098
Milch cows	988,079	1,021,210	1,064,470	1,092,314	42,487	51,810	52,295	59,415
Other cattle	813,046	820,348	836,193	849,770	18,700	21,841	21,817	24,643
Total cattle	1,801,125	1,841,558	1,900,663	1,942,084	61,187	73,651	74,112	84,058
Sheep	831,227	843,579	852,439	861,548	6,650	7,570	7,959	7,683
Swine	797,726	784,143	808,706	833,529	12,764	13,956	14,475	14,032
Total	–	–	–	–	**114,418**	**128,852**	**131,618**	**142,871**
Ontario—								
Horses	663,875	644,138	629,659	617,136	53,275	57,137	60,062	62,331
Milch cows	1,203,527	1,232,679	1,280,436	1,299,840	65,546	73,783	81,142	95,698
Other cattle	1,713,775	1,576,694	1,477,363	1,415,114	59,787	62,216	58,236	67,925
Total cattle	2,917,302	2,809,373	2,757,799	2,714,954	125,333	135,999	139,378	163,623
Sheep	870,279	868,526	886,483	956,267	9,373	10,045	10,749	11,238
Swine	1,807,903	1,678,595	1,735,355	1,883,177	21,016	25,121	25,872	24,481
Total	–	–	–	–	**208,997**	**228,302**	**236,061**	**261,673**
Manitoba—								
Horses	369,722	359,839	340,979	346,431	23,055	24,815	23,869	26,506
Milch cows	263,577	233,273	245,901	255,874	10,248	10,229	11,311	14,802
Other cattle	446,705	487,472	364,101	451,336	10,069	13,525	10,559	17,353
Total cattle	710,282	720,745	610,002	707,210	20,317	23,754	21,870	32,155
Sheep	94,784	101,997	112,703	135,982	843	976	1,014	1,318
Swine	425,747	298,507	304,434	387,260	4,881	4,856	4,871	5,128
Total	–	–	–	–	**49,096**	**54,401**	**51,624**	**65,107**
Saskatchewan—								
Horses	1,170,745	1,169,952	1,104,258	1,161,327	70,245	77,217	72,881	76,648
Milch cows	468,151	496,502	438,245	462,270	19,194	20,357	17,968	23,576
Other cattle	1,060,716	1,002,909	721,880	842,020	24,396	26,076	19,491	31,155
Total cattle	1,528,867	1,499,411	1,160,125	1,304,290	43,590	46,433	37,459	54,731
Sheep	123,326	131,359	161,831	170,038	1,110	1,182	1,456	1,530
Swine	872,819	610,973	597,660	616,603	9,601	9,776	10,160	8,016
Total	–	–	–	–	**124,546**	**134,608**	**121,956**	**140,925**
Alberta—								
Horses	861,537	849,939	784,302	762,603	33,038	36,393	35,294	39,870
Milch cows	433,528	460,722	405,718	379,992	16,332	18,318	17,446	20,966
Other cattle	1,188,468	1,066,007	763,294	1,155,008	27,114	27,635	21,372	43,890
Total cattle	1,621,996	1,526,729	1,169,012	1,535,000	43,446	45,953	38,818	64,856
Sheep	206,458	236,804	504,849	510,000	2,112	2,357	5,048	4,888
Swine	949,891	854,902	701,277	742,671	11,086	12,459	10,519	9,303
Total	–	–	–	–	**89,682**	**97,162**	**89,679**	**118,917**
British Columbia—								
Horses	42,555	48,208	51,994	49,252	3,021	3,616	4,056	3,482
Milch cows	73,587	80,996	84,632	91,747	4,783	5,346	5,755	6,881
Other cattle	188,525	206,832	244,596	258,718	6,222	7,446	8,561	11,125
Total cattle	262,122	287,828	329,228	350,465	11,005	12,792	14,316	18,006
Sheep	54,218	61,224	101,660	128,993	596	796	1,220	1,548
Swine	42,672	41,868	45,528	49,654	597	712	865	943
Total	–	–	–	–	**15,219**	**17,916**	**20,457**	**23,979**

21.—Average Values per head of Farm Live Stock in Canada, as estimated by Cro Correspondents, 1916-1927.

Farm Animals.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	192
	$	$	$	$	$	$	$	$	$	$	$	$
Canada—												
Horses	129	126	127	119	106	83	72	63	64	69	72	7
Milch cows	70	86	87	92	79	51	48	47	46	51	52	6
Other cattle	54	57	61	58	47	28	26	26	27	31	31	3
Total cattle	61	69	70	70	59	37	35	34	34	39	40	4
Sheep	10	15	16	15	10	6	8	8	9	10	10	1
Swine	18	26	26	25	23	14	15	12	12	16	16	1
Prince Edward Island—												
Horses	87	88	103	114	109	84	92	80	85	84	91	9
Milch cows	52	64	71	83	60	38	48	43	42	50	50	5
Other cattle	35	38	44	53	34	21	26	22	24	28	28	2
Total cattle	42	50	54	64	43	28	34	30	33	39	39	4
Sheep	9	14	15	14	8	5	7	6	8	9	9	
Swine	20	27	29	27	24	16	19	11	15	20	15	1
Nova Scotia—												
Horses	108	111	117	127	119	98	95	96	93	94	93	10
Milch cows	53	63	65	76	71	44	45	44	43	46	48	5
Other cattle	38	45	44	54	43	27	26	28	28	30	27	2
Total cattle	45	54	53	63	55	34	35	35	35	37	37	3
Sheep	7	9	10	11	8	4	6	6	7	7	7	
Swine	18	29	30	29	24	18	18	16	15	14	18	
New Brunswick—												
Horses	127	127	141	138	139	115	110	99	104	101	109	11
Milch cows	49	63	65	70	61	40	40	43	36	46	46	
Other cattle	33	40	41	42	39	23	25	26	22	30	26	
Total cattle	41	52	51	53	49	31	32	34	29	38	37	
Sheep	7	10	12	11	8	5	6	6	6	7	8	
Swine	17	27	28	31	22	17	17	16	16	19	22	
Quebec—												
Horses	115	132	131	134	126	89	100	97	98	98	101	9
Milch cows	62	82	79	84	75	46	45	42	43	51	49	
Other cattle	51	46	45	44	38	23	23	22	23	27	26	
Total cattle	57	63	61	61	56	35	35	33	34	40	39	
Sheep	11	15	14	13	10	6	8	7	8	9	9	
Swine	17	29	26	24	26	16	19	15	16	18	18	
Ontario—												
Horses	125	113	111	110	108	96	90	84	80	89	95	
Milch cows	76	93	96	107	92	59	58	58	54	60	63	
Other cattle	65	63	67	68	57	34	34	33	35	39	39	
Total cattle	71	79	78	83	71	45	44	44	43	48	51	
Sheep	13	19	20	18	12	8	9	9	11	12	12	
Swine	18	25	27	25	23	13	14	12	12	15	15	
Manitoba—												
Horses	128	138	141	131	114	89	84	64	62	69	70	
Milch cows	74	88	91	90	71	45	42	40	39	44	46	
Other cattle	51	57	64	58	44	23	25	23	23	28	29	
Total cattle	59	69	73	67	52	30	31	29	29	33	35	
Sheep	12	16	17	15	9	6	7	7	9	10	9	
Swine	17	24	26	27	22	14	14	11	11	16	16	
Saskatchewan—												
Horses	149	138	149	125	108	82	67	53	60	66	66	
Milch cows	73	85	91	91	73	49	40	39	41	41	41	
Other cattle	51	59	66	62	45	28	23	21	23	26	27	
Total cattle	58	66	73	70	59	33	28	26	28	31	32	
Sheep	10	14	17	15	8	6	7	6	9	9	9	
Swine	17	25	28	26	20	14	13	10	11	16	17	
Alberta—												
Horses	121	122	107	94	80	64	42	40	38	43	45	
Milch cows	77	89	93	89	71	48	38	39	38	40	43	
Other cattle	56	64	70	60	45	28	21	23	23	26	28	
Total cattle	61	70	74	66	51	32	25	27	27	30	33	
Sheep	10	15	15	14	10	6	7	8	10	10	10	
Swine	17	24	24	25	18	13	12	10	12	15	15	
British Columbia—												
Horses	108	118	123	129	126	100	78	75	71	75	78	
Milch cows	94	103	106	118	125	85	69	70	65	66	68	
Other cattle	55	65	67	71	72	40	33	27	33	36	35	
Total cattle	66	73	75	81	99	50	41	39	42	44	43	
Sheep	11	14	15	16	11	8	9	10	11	13	12	
Swine	19	21	24	28	21	17	16	14	14	17	19	

22.—Estimated Numbers and Values of Farm Poultry in Canada, 1925-27.

Description.	No.	Average value per head.	Total value.
		$	$
Canada—			
Turkeys.....1925	2,142,359	2·62	5,619,000
1926	2,088,296	2·95	6,161,000
1927	1,890,203	3·08	5,817,000
Geese.....1925	1,185,139	2·03	2,411,000
1926	1,011,314	2·20	2,228,000
1927	1,135,155	2·20	2,496,000
Ducks.....1925	1,103,606	1·08	1,197,000
1926	913,309	1·17	1,069,000
1927	981,032	1·18	1,154,000
Other fowls..1925	43,702,865	0·87	37,944,000
1926	46,095,597	0·90	41,579,000
1927	46,172,095	0·94	43,491,000
Total poultry1925	48,133,969	–	47,171,000
1926	50,108,516	–	51,037,000
1927	50,178,485	–	52,958,000
P. E. Island—			
Turkeys.....1925	14,442	3·05	44,000
1926	8,790	3·16	28,000
1927	10,155	3·17	32,000
Geese.....1925	46,354	2·10	97,000
1926	27,096	2·19	59,000
1927	29,183	2·21	64,000
Ducks.....1925	17,486	1·11	19,000
1926	6,743	1·18	8,000
1927	8,167	1·11	9,000
Other fowls..1925	863,208	0·99	855,000
1926	760,844	0·99	753,000
1927	820,832	1·03	845,000
Total poultry1925	941,490	–	1,015,000
1926	803,473	–	848,000
1927	868,337	–	950,000
Nova Scotia—			
Turkeys.....1925	7,847	3·40	27,000
1926	8,591	3·50	30,000
1927	8,070	3·73	30,000
Geese.....1925	17,263	2·41	42,000
1926	15,822	2·56	41,000
1927	15,562	2·69	42,000
Ducks.....1925	10,105	1·24	13,000
1926	7,523	1·39	10,000
1927	7,665	1·32	10,000
Other fowls..1925	825,010	0·88	726,000
1926	796,237	0·90	717,000
1927	856,885	0·93	797,000
Total poultry1925	860,225	–	808,000
1926	828,173	–	798,000
1927	888,182	–	879,000
New Brunswick—			
Turkeys.....1925	38,832	3·77	146,000
1926	24,434	3·96	97,000
1927	30,244	4·25	129,000
Geese.....1925	20,753	2·66	55,000
1926	17,354	2·54	44,000
1927	17,649	2·58	46,000
Ducks.....1925	8,968	1·42	13,000
1926	6,320	1·43	9,000
1927	10,223	1·38	14,000
Other fowls..1925	882,510	1·09	962,000
1926	806,513	1·02	823,000
1927	895,977	1·02	914,000
Total poultry1925	951,063	–	1,176,000
1926	854,621	–	973,000
1927	954,093	–	1,103,000

Description.	No.	Average value per head.	Total value.
		$	$
Quebec—			
Turkeys.....1925	198,000	3·24	642,000
1926	194,000	3·44	667,000
1927	188,000	3·43	645,000
Geese.....1925	113,000	2·06	233,000
1926	111,000	2·18	242,000
1927	108,000	2·12	229,000
Ducks.....1925	60,000	1·27	76,000
1926	58,000	1·24	72,000
1927	56,000	1·24	69,000
Other fowls..1925	6,658,000	1·01	6,725,000
1926	6,991,000	1·07	7,480,000
1927	7,410,000	1·05	7,781,000
Total poultry1925	7,029,000	–	7,676,000
1926	7,354,000	–	8,461,000
1927	7,762,000	–	8,724,000
Ontario—			
Turkeys.....1925	480,612	3·48	1,673,000
1926	469,981	3·67	1,725,000
1927	496,164	3·65	1,811,000
Geese.....1925	555,720	2·26	1,256,000
1926	567,151	2·36	1,338,000
1927	594,593	2·35	1,397,000
Ducks.....1925	558,742	1·20	670,000
1926	544,130	1·25	680,000
1927	578,721	1·25	723,000
Other fowls..1925	16,183,507	1·00	16,184,000
1926	16,111,738	1·02	16,434,000
1927	17,378,567	1·04	18,074,000
Total poultry1925	17,778,581	–	19,783,000
1926	17,693,000	–	20,177,000
1927	19,048,045	–	22,005,000
Manitoba—			
Turkeys.....1925	271,521	2·29	622,000
1926	313,709	2·88	906,000
1927	311,859	2·85	889,000
Geese.....1925	108,723	1·70	185,000
1926	73,106	1·85	135,000
1927	117,475	1·87	220,000
Ducks.....1925	96,680	0·88	85,000
1926	54,200	0·99	54,000
1927	86,991	1·00	87,000
Other fowls..1925	3,413,919	0·72	2,458,000
1926	4,075,435	0·80	3,260,000
1927	3,647,425	0·82	2,991,000
Total poultry1925	3,890,843	–	3,350,000
1926	4,516,450	–	4,352,000
1927	4,163,750	–	4,187,000
Saskatchewan—			
Turkeys.....1925	564,581	2·12	1,197,000
1926	563,363	2·51	1,414,000
1927	470,629	2·48	919,000
Geese.....1925	171,517	1·65	283,000
1926	107,386	1·82	195,000
1927	137,054	1·88	258,000
Ducks.....1925	207,311	0·85	176,000
1926	129,481	0·90	117,000
1927	122,269	0·90	110,000
Other fowls..1925	7,000,991	0·61	4,271,000
1926	8,380,444	0·67	5,615,000
1927	6,886,726	0·72	4,958,000
Total poultry1925	7,944,400	–	5,927,000
1926	9,180,674	–	7,341,000
1927	7,516,678	–	6,245,000

22.—Estimated Numbers and Values of Farm Poultry in Canada, 1925-27—concluded

Description.	No.	Average value per head.	Total value.	Description.	No.	Average value per head.	Total value.
		$	$			$	$
Alberta—				**British Columbia—**			
Turkeys.....1925	545,388	2·19	1,194,000	Turkeys.....1925	21,136	3·50	74,000
1926	483,016	2·51	1,212,000	1926	22,412	3·80	85,000
1927	451,261	2·81	1,268,000	1927	23,821	3·94	94,000
Geese.....1925	138,683	1·61	223,000	Geese.....1925	13,126	2·80	37,000
1926	80,743	1·74	140,000	1926	11,656	2·90	34,000
1927	104,314	1·98	207,000	1927	11,325	2·89	33,000
Ducks.....1925	109,174	0·91	99,000	Ducks.....1925	35,140	1·30	46,000
1926	74,752	0·99	74,000	1926	32,160	1·40	45,000
1927	79,246	1·09	86,000	1927	31,750	1·45	46,000
Other fowls..1925	5,559,472	0·62	3,447,000	Other fowls..1925	2,316,248	1·00	2,316,000
1926	5,489,030	0·67	3,678,000	1926	2,684,356	1·05	2,819,000
1927	5,219,408	0·75	3,922,000	1927	3,056,275	1·05	3,209,000
Total poultry1925	6,352,717	–	4,963,000	Total poultry1925	2,385,650	–	2,473,000
1926	6,127,541	–	5,104,000	1926	2,750,584	–	2,983,000
1927	5,854,229	–	5,483,000	1927	3,123,171	–	3,382,000

Production and Value of Wool[1].—The production of wool in Canada from 3,265,727 sheep and lambs is placed at 18,672,766 lb. in 1927, as compared with 17,959,896 lb. from 3,144,343 sheep and lambs in 1926. Table 23 gives the total estimated production and value of wool for the years 1915 to 1928.

23.—Estimated Value of Canadian Wool Clip, 1915-1928.

NOTE.—Includes sheep on Indian reserves.

Years.	Sheep.	Production of wool.	Average price per lb. of wool.	Value.
	No.	lb.	cents.	$
1915	2,038,662	12,000,000	28	3,360,000
1916	2,022,941	12,000,000	37	4,440,000
1917	2,369,358	12,000,000	59	7,000,000
1918	3,052,748	20,000,000	60	12,000,000
1919	3,421,958	20,000,000	60	12,000,000
1920	3,720,783	24,000,000	22	5,280,000
1921	3,675,860	21,251,000	14	2,975,000
1922	3,262,626	18,523,392	17·5	3,149,000
1923	2,755,273	15,539,416	20	3,160,000
1924	2,686,367	15,111,719	25	3,774,000
1925	2,757,199	15,553,045	25	3,961,000
1926	3,144,343	17,959,896	23	4,131,000
1927	3,265,727	18,672,766	22	4,108,000
1928	3,418,992	19,611,430	26[3]	5,099,000

Egg Production[2].—Table 24 gives the results of calculations indicating approximately the number and value of eggs produced on farms in Canada for the years 1922-27. The estimates relate only to hens' eggs produced on farms, and therefore do not include eggs of urban poultry, or eggs of farm turkeys, ducks, etc.

24.—Production and Value of Farm Eggs in Canada, 1922-1927.

NOTE.—The Indian Reserves are included for the years 1923 to 1927, but not for 1922.

Years.	Egg-producing hens on farms.	Average production per hen.	Total eggs produced.	Average value per dozen.	Total value of eggs produced
	No.	No.	dozen.	cents.	$
1922	29,945,484	78	194,058,468	25	48,490,500
1923	31,064,992	78	202,186,508	24	48,770,700
1924	32,220,057	79	212,648,685	24	50,322,400
1925	32,837,040	82	224,778,867	26	57,950,300
1926	34,006,290	84	237,080,399	28	66,198,200
1927	34,722,700	87	253,277,227	32	80,110,000

[1] For details of wool clip, see Monthly Bulletin of Agricultural Statistics for December of each year.
[2] For details of egg production in 1926 and 1927, see Monthly Bulletin of Agricultural Statistics, Feb. 1928, p. 59. [3] Provisional estimate.

Subsection 4.—Fur Farming.[1]

Origin of Fur Farming Industry.—Since the early days of the fur trade, it has been the practice in Canada for trappers to keep foxes, caught in warm weather, alive until the fur was prime, and from this custom has arisen the modern industry of fur farming. The earliest authentic record of the raising of foxes in captivity comes from Prince Edward Island, where about forty-five years ago a number of foxes were raised on a farm near Tignish. The beauty of the fur of the silver fox and the consequent high prices realized from the sale of the pelts, caused attention to be directed chiefly to this breed, a colour phase of the common red fox, which has been established through selective breeding carried on by the pioneer fox farmers. After 1890 there came a period of rising prices for furs, and the fox farming industry grew rapidly in Prince Edward Island. In 1913 an enumeration by the Provincial Commissioner of Agriculture showed 277 fox farms in that province, with a total of 3,130 foxes.[1] While experiments were being carried on in Prince Edward Island, attempts at raising foxes in captivity were also being made in other provinces, the records showing that foxes were successfully bred in Quebec in 1898, in Ontario in 1905 and in Nova Scotia in 1906. In 1912 and 1913 the Commission of Conservation conducted an exhaustive inquiry into the history and possibilities of fur farming in Canada, the resulting data, published in 1913, gave an impetus to the industry.[2] The Prince Edward Island Silver Fox Breeders' Association was formed in 1915, and the Canadian Silver Fox Breeders' Association in 1920. Fox farming is now carried on in all provinces of the Dominion and the number of farms is steadily increasing. The recognition of the importance of fox farming as a branch of the live stock industry is indicated by the addition, during 1925, to the system of Dominion experimental farms and stations (as shown on page 216 of this volume) of an experimental fox ranch at Summerside in Prince Edward Island, where the fox farmer's problems of breeding, feeding, housing and general care can be specially studied.

Although the fox has proved the most suited to domestication, other kinds of fur-bearing wild animals are being raised in captivity—mink, raccoon, skunk, marten, fisher and rabbit. Karakul sheep, from which are obtained the furs known as "persian lamb", "astrachan" and "broadtail", are also being raised successfully in Canada. Mink farms are the most numerous of the miscellaneous class, raccoon farms coming next. A few of the fox farms also raise miscellaneous fur-bearing animals in addition to the foxes.

Subsection 5.—Dairying Statistics.

Dairying is one of the oldest and is now one of the most important industries of Canada. The first permanent introduction of cows into Canada was undoubtedly made by Champlain at Quebec between 1608 and 1610. In 1629 he had 60 to 70 cattle on his farm at Cap Tourmente. In 1660, Colbert, the great French Minister, sent to New France representatives of the best dairy cows of Normandy and Brittany. In 1667 there were 3,107 head of cattle in New France and in 1671 866 in Acadia. The first cattle in what is now Ontario were taken thither by La Motte Cadillac in 1701. In 1823 a herd of 300 cattle was driven north to the Red River Settlement and sold to settlers, while cattle in British Columbia date from 1837. Modern dairying owes its development and expansion to the factory system for the making of cheese and butter, to the introduction of the centrifugal cream separator

[1] As the statistics of the fur farms in Canada are not yet available for 1927, the reader is referred to pages 260 and 261 of the 1927-28 Year Book for the latest available figures.

[2] Fur Farming in Canada, by J. Walter Jones, B.A., B.S.A., Commission of Conservation, Ottawa, second edition revised and enlarged, 1914.

from Denmark in 1882, and to the facilities afforded by improved methods of cold storage, which came under Government organization in 1895.

Creamery Butter.—The first creamery in Canada was established at Athelstan, Huntingdon Co., Quebec, in 1873, while the first cream separator was installed at Ste. Marie, Beauce Co., Quebec, in 1882. The first Ontario creamery was established in 1875, and what was probably the first cream separator in Ontario was installed at Belleville in 1883. Butter reached its maximum exportation in the year ended June 30, 1903, with 34,128,944 lb. The latest figures for the year ended Dec. 31, 1927, show an export of 2,696,000 lb. The quantity of creamery butter made in Canada in 1927 was 176,978,947 lb. (Table **25**), valued at $65,709,986—a decrease in quantity from the preceding year of 230,340 lb., or 0·1 p.c., and an increase in value of $3,956,596, or 6·4 p.c. The average price per lb. for the whole of Canada was 37 cents in 1927, compared with 35 cents in 1926. The production of creamery butter in 1927 exceeded in quantity the production of any previous year except 1924 and 1926, while the value of production is the greatest in the history of the industry.

25.—Production and Value of Creamery Butter, by Provinces, 1925-1927.

Provinces.	1925.	1926.	1927.	1925.	1926.	1927.
	lb.	lb.	lb.	$	$	$
Prince Edward Island	1,724,283	1,844,213	2,019,442	632,5.7	651,904	742,769
Nova Scotia	4,530,028	4,789,590	5,059,740	1,782,414	1,775,548	1,913,455
New Brunswick	1,279,417	1,413,454	1,898,212	469,153	520,195	714,804
Quebec	49,368,635	50,822,389	55,098,768	18,888,581	17,239,177	20,216,505
Ontario	59,871,256	62,530,133	66,312,963	22,059,271	22,751,345	25,095,334
Manitoba	13,663,312	15,418,630	14,231,026	4,909,958	5,171,138	5,125,585
Saskatchewan	15,946,233	16,629,136	11,995,531	5,855,979	5,515,349	4,354,734
Alberta	19,630,101	19,912,466	16,.79,712	6,959,059	6,568,280	5,765,348
British Columbia	3,481,702	3,849,276	4,183,553	1,451,135	1,560,454	1,781,452
Total	**169,494,967**	**177,209,287**	**176,978,947**	**63,008,097**	**61,753,390**	**65,709,986**

Factory Cheese.—The early French colonists made butter and cheese, of which the *fromage raffiné*, still made on the Isle of Orleans, is probably a survival. The United Empire Loyalists introduced cheese and butter-making into the districts settled by them, and in 1801 sent their surplus butter and cheese to the United States. The first modern cheese factory in Canada was established in Oxford Co., Ontario, in 1864, while shortly afterwards factories were established in the Burkville and Belleville districts of Ontario; in Missisquoi Co., Quebec; near Sussex, New Brunswick, and in Annapolis Co., Nova Scotia. These factories were established before 1870, and after that date the number rapidly increased. In 1868 the quantity of cheese exported from Canada was 6,141,570 lb. In 1904 cheese reached its maximum exportation with 233,980,716 lb., and the exports of cheese for the year ended Dec. 31, 1927, amounted to 110,533,000 lb. The production of factory cheese in 1927 totalled 138,056,908 lb., of the value of $25,522,148, a decrease in quantity from the previous year of 18·6 p.c., and in value of 11·4 p.c. (Table **26**). The average prices per lb. were 18·5 cents in 1927 and 17 cents in 1926.

26 —Production and Value of Factory Cheese, by Provinces, 1925-1927.

Provinces.	1925.	1926.	1927.	1925.	1926.	1927.
	lb.	lb.	lb.	$	$	$
Prince Edward Island	2,001,242	2,002,857	1,657,431	413,545	316,702	307,670
Nova Scotia	34,856	34,440	42,676	7,435	5,967	8,535
New Brunswick	1,130,773	1,057,234	803,325	230,434	181,986	155,098
Quebec	51,761,908	46,355,360	37,510,737	10,685,139	7,485,561	6,805,658
Ontario	119,281,825	119,395,853	96,161,301	24,629,504	20,246,194	17,851,247
Manitoba	765,407	863,658	635,172	150,171	161,126	139,463
Saskatchewan	255,010	378,176	269,048	52,909	69,085	52,337
Alberta	1,473,835	1,449,983	848,511	306,605	275,107	170,689
British Columbia	434,257	194,070	128,707	95,814	66,113	31,451
Total	**177,139,113**	**171,731,631**	**138,056,908**	**36,571,556**	**28,807,841**	**25,522,148**

Condensed Milk and Milk Powder.—Within recent years there has been a large increase in the production of condensed milk. The first milk-condensing plant was established at Truro, N.S., in 1883, and there are now in Canada 27 plants for the manufacture of condensed and evaporated milk and milk powder. The quantity of condensed milk made in Canada in 1927 was 30,909,839 lb., of the value of $3,272,283, an increase in quantity of 3,206,397 lb., or 11·2 p.c., as compared with 1926. The quantity of evaporated milk made was 51,854,663 lb., valued at $4,574,839, an increase of 17·4 p.c. from the production of 1926. The quantity of milk powder and skim milk powder made in 1927 was 14,965,599 lb., valued at $1,693,402. Of the 27 condenseries in operation in Canada in 1927, 23 were situated in Ontario, and to the total value of products of condenseries of $13,387,048, Ontario contributed $12,172,354. Table **27** shows the quantity and value of products other than butter and factory cheese for the years 1925, 1926 and 1927.

27.—Miscellaneous Products of Dairy Factories, 1925-1927.

Products.	1925.		1926.		1927.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		$		$		$
Condensed milk lb.	29,832,764	3,599,235	27,703,442	3,106,227	30,909,839	3,272,283
Evaporated milk lb.	44,550,325	4,324,029	44,183,491	4,197,546	51,854,663	4,574,839
Milk powder lb.	2,843,942	567,339	2,657,147	550,790	2,213,974	466,606
Skim milk powder lb.	10,634,699	1,016,200	11,453,869	1,105,666	12,751,625	1,226,796
Sterilized milk lb.	–	–	–	–	–	–
Cream powder lb.	–	–	–	–	148,384	80,204
Skim condensed milk lb.	4,175,485	252,665	8,405,464	521,622	7,107,998	412,447
Condensed coffee lb.	297,102	48,428	278,985	56,737	268,206	50,423
Whey butter lb.	1,492,573	480,938	1,574,112	491,475	1,393,730	459,055
Casein lb.	358,777	36,717	572,854	62,550	862,378	102,714
Ice cream gal.	3,911,305	5,188,426	4,709,641	6,268,588	5,303,531	7,098,109
Milk sold gal.	35,020,484	14,484,116	40,448,013	17,108,709	42,151,842	17,576,453
Cream sold (lb. butter fat)	12,114,604	7,335,710	13,116,980	7,915,865	13,308,886	8,223,008
Whey cream sold	–	–	–	299,182	–	249,601
Buttermilk sold	–	308,938	–	356,711	–	338,783
Sundry	–	1,059,832	–	750,117	–	547,475
Total	**–**	**38,702,573**	**–**	**42,791,845**	**–**	**44,678,796**

Retrospective Statistics.—In Table **28** the production and value of creamery butter and factory cheese is compared by provinces and for all Canada for the years 1900, 1910, 1915 and 1920 and annually from 1925 to 1927. Table **29** shows the total value of all the products of dairy factories by provinces for the five years 1923 to 1927.

28.—Production and Value of Creamery Butter and Factory Cheese in Canada, by Provinces, 1900, 1910, 1915, 1920 and 1925-1927.

Provinces and Years.	Establishments.	Creamery butter.		Factory cheese.	
	No.	lb.	$	lb.	$
Canada.....1900	3,576	36,066,739	7,240,972	220,833,269	22,221,430
1910	3,625	64,489,398	15,597,807	199,904,205	21,587,124
1915	3,513	83,991,453	24,385,052	183,887,837	27,097,176
1920	3,161	111,691,718	63,625,203	149,201,856	39,100,872
1925	3,012	169,494,967	63,008,097	177,139,113	36,571,556
1926	3,047	177,209,287	61,753,390	171,731,631	28,807,841
1927	2,899	176,978,947	65,709,986	138,056,908	25,522,148
Prince Edward Island.....1900	47	562,220	118,402	4,457,519	449,400
1910	45	670,908	156,478	3,293,755	354,378
1915	42	539,516	151,065	2,260,000	327,700
1920	37	1,166,032	674,744	2,081,277	525,635
1925	34	1,724,283	632,547	2,001,242	413,545
1926	36	1,844,213	651,904	2,002,857	316,702
1927	36	2,019,442	742,769	1,657,431	307,670
Nova Scotia.....1900	33	334,211	68,686	568,147	58,321
1910	18	354,785	88,481	264,243	29,977
1915	27	1,240,483	346,011	125,580	18,837
1920	26	2,503,188	1,518,757	52,638	14,865
1925	28	4,530,028	1,782,414	34,856	7,435
1926	29	4,789,590	1,775,548	34,440	5,967
1927	32	5,059,740	1,913,455	42,676	8,535
New Brunswick.....1900	68	287,814	58,589	1,892,686	187,106
1910	42	849,633	212,205	1,166,243	129,677
1915	43	776,416	231,838	1,165,651	168,086
1920	38	1,053,649	606,891	1,235,008	336,409
1925	37	1,279,417	469,153	1,130,773	230,434
1926	38	1,413,454	520,195	1,057,234	181,986
1927	38	1,898,212	714,804	803,325	155,098
Quebec.....1900	1,992	24,625,000	4,916,756	80,630,199	7,957,621
1910	2,143	41,782,678	9,961,732	58,171,091	6,195,254
1915	2,058	36,621,491	10,899,810	54,217,113	7,571,691
1920	1,809	41,632,511	23,580,949	52,162,777	13,372,250
1925	1,599	49,368,635	18,888,581	51,761,908	10,685,139
1926	1,576	50,822,389	17,239,177	46,355,360	7,485,561
1927	1,450	55,098,768	20,216,505	37,510,737	6,805,658
Ontario.....1900	1,336	7,559,542	1,527,935	131,967,612	13,440,987
1910	1,254	13,876,888	3,331,025	136,093,951	14,769,566
1915	1,164	26,414,120	7,534,653	125,001,136	18,831,413
1920	1,058	37,234,998	21,343,858	92,784,757	24,605,823
1925	1,029	59,871,256	22,059,271	119,281,825	24,629,504
1926	1,060	62,530,133	22,751,345	119,395,853	20,246,194
1927	1,039	66,312,963	25,095,334	96,161,301	17,851,247
Manitoba.....1900	69	1,557,010	292,247	1,289,413	124,025
1910	42	2,050,487	511,972	694,713	81,403
1915	59	5,839,667	1,693,503	726,725	109,008
1920	57	7,578,549	4,282,731	116,229	31,611
1925	63	13,663,312	4,909,958	765,407	150,171
1926	73	15,418,630	5,171,138	863,658	161,126
1927	71	14,231,026	5,125,585	635,172	139,463
Saskatchewan.....1900	5	143,645	29,362	6,000	868
1910	27	1,548,696	381,809	26,730	3,396
1915	29	3,811,014	1,055,000	–	–
1920	47	6,638,656	3,727,140	28,367	7,790
1925	78	15,946,233	5,855,979	255,010	52,909
1926	89	16,629,136	5,515,349	378,176	69,085
1927	91	11,995,531	4,354,734	269,048	52,337
Alberta.....1900	18	601,489	123,305	21,693	3,102
1910	56	2,149,121	533,422	193,479	23,473
1915	62	7,544,148	2,021,448	381,632	68,441
1920	55	11,821,291	6,555,509	398,750	110,355
1925	104	19,630,101	6,959,059	1,473,835	306,605
1926	104	19,912,466	6,568,280	1,449,983	275,107
1927	105	16,179,712	5,765,348	848,511	170,689

28.—Production and Value of Creamery Butter and Factory Cheese in Canada, by Provinces, 1900, 1910, 1915, 1920 and 1925-1927—concluded.

Provinces and Years.	Establishments.	Creamery butter.		Factory cheese.	
	No.	lb.	$	lb.	$
British Columbia....1900	8	395,808	105,690	–	–
1910	9	1,206,202	420,683	–	–
1915	29	1,204,598	451,724	10,000	2,000
1920	34	2,062,844	1,334,624	342,053	96,134
1925	40	3,481,702	1,451,135	434,257	95,814
1926	42	3,849,276	1,560,454	194,070	66,113
1927	37	4,183,553	1,781,452	128,707	31,451

29.—Total Value of All Products of Dairy Factories, by Provinces, 1923-1927.[1]

Provinces.	1923.	1924.	1925.	1926.	1927.
	$	$	$	$	$
Canada	**120,120,390**	**122,027,181**	**138,282,226**	**133,353,076**	**135,910,930**
Prince Edward Island	950,095	951,929	1,107,803	1,048,728	1,143,554
Nova Scotia	2,325,825	2,523,502	2,878,005	2,939,770	3,186,845
New Brunswick	1,099,474	1,179,954	1,442,613	1,507,716	1,683,065
Quebec	29,386,505	27,428,100	30,658,717	26,444,546	29,101,969
Ontario	63,114,425	62,657,787	73,751,526	72,846,336	73,788,538
Manitoba	6,531,902	7,104,381	8,092,802	8,424,434	8,385,844
Saskatchewan	5,083,910	5,778,083	7,373,498	7,190,215	6,414,373
Alberta	7,971,211	8,971,747	8,188,104	7,817,729	6,888,049
British Columbia	3,657,043	5,431,698	4,789,158	5,133,602	5,318,693

[1] The total value of dairy products in 1901 and various subsequent years is shown in the "Statistical Summary of the Progress of Canada", immediately following the Table of Contents.

Dairy Butter and Home-made Cheese.—The statistics of the foregoing tables relate entirely to the products of dairy factories. In addition, there is a large production of butter on farms, generally described as home-made or dairy butter, and a small production of home-made cheese. No annual statistics are collected of these products; the census of 1911, however, showed that the production of dairy butter in 1910 was 137,110,200 lb., value $30,269,497, and of home-made cheese 1,371,092 lb., value $154,088. According to the census of 1921 the production of dairy butter in 1920 was 103,487,506 lb., worth $50,180,952, and of home-made cheese 533,561 lb., worth $123,283. The production of dairy butter in 1927 is estimated at approximately 95,000,000 lb., of the value of $30,435,121, thus making the total estimated production of butter, including dairy butter, in 1927, 271,978,947 lb., valued at $96,145,107.

Total Value of Dairy Products.—The total value of the dairy products of Canada in 1920 was estimated at $288,836,093, including creamery butter, $63,625,203, dairy butter, $50,180,952, factory cheese, $39,100,872, home-made cheese, $123,283, miscellaneous factory products, $22,827,460 and milk consumed fresh or otherwise used, $112,978,323. For 1927 the total is estimated at $253,736,605, comprising creamery butter, $65,709,986, dairy butter, $30,435,121, factory cheese, $25,522,148, home-made cheese, $70,654, miscellaneous dairy factory products, $18,879,335 and milk consumed fresh or whole, $113,119,361.

Subsection 6.—Fruit Farming.

The wild fruits of Canada are numerous and varied. Currants, gooseberries, raspberries and strawberries grow wild almost as far north as the Arctic circle, the flavour being unexcelled by that of cultivated varieties. The blueberry grows in great profusion over a large part of Eastern Canada, while the cranberry is found over wide areas throughout the Dominion. Other wild fruits include the saskatoon or juneberry of the Prairie Provinces, the choke cherry, the pin or bird cherry, the buffalo berry, the blackberry, the salmon-berry and the cloudberry. Wild plums are found all through the eastern provinces and wild grapes as far northwestward as Manitoba.

Canadian climatic and soil conditions are eminently fitted for the production of cultivated and improved varieties, and it is usual in the farms of Eastern Canada to find orchard or garden fruits produced for household needs, if not for sale as ordinary farm products. Fruit-growing as a specialized form of agriculture is a comparatively recent development. The building of the railways and the introduction of refrigerator cars provided the means by which perishable fruits might be rapidly distributed throughout the Dominion from districts where climatic and soil conditions were particularly favourable to the cultivation of fruit. While commercial fruit-growing is by no means restricted to a few districts and is often a feature of agricultural production in suburban areas, certain districts are nevertheless noted as being the more important centres of fruit production. The Annapolis and adjacent valleys in Nova Scotia, the Niagara peninsula of Ontario and the Okanagan valley in British Columbia are outstanding, but the northern shore of lake Ontario, the Georgian Bay district, the areas adjacent to Montreal, the lower British Columbia mainland and Vancouver island are also noted for their fruit crops.

The smaller fruits grown for sale generally find a market in nearby towns or cities, although many shipments are made from rural districts by rail or water to more distant centres of consumption. Apples, which are probably the most important Canadian fruit, meet with ready sale in British and European markets, where their attractive appearance, flavour and good keeping qualities have gained a wide reputation. Practically all varieties of fruit are prepared in canneries located near the centres of production and are shipped to both domestic and foreign markets.

Origin and Growth of Fruit-growing.—In Nova Scotia the apple-growing industry has assumed great importance, the bulk of the crop being annually exported to Great Britain. There are records of the growth of apples in Acadia from 1635. The census of 1698 showed that at Port Royal alone there were 1,584 apple trees distributed amongst 54 families, of whom many had orchards of from 75 to 100 trees. At Beaubassin in 1698 the census showed 32 acres in fruit trees. The first apples exported from the province are said to have been shipped by sailing vessel from Halifax to Liverpool in 1849, the price realized being $2 per barrel. In 1856 a shipment of 700 barrels was made by schooner to Boston, U.S.A., the price realized being $2.75 per barrel. The first experimental commercial shipments of apples to England from the Annapolis valley were made in December, 1861, but proved disappointing. The first steamer to carry apples direct from Annapolis Royal to London was the "Neptune", which sailed on April 2, 1881. The shipment consisted of 6,800 barrels, and arrived in London in 14 days. This venture was fairly successful, and from that time the business has continued to increase in volume. Up to 1890, however, the production of apples in Nova Scotia rarely exceeded 100,000 barrels, but after that date there was a pronounced increase in

acreage and production, and in 1909 the production reached 1,000,000 barrels. A record crop of about 1,900,000 barrels was produced in 1911, when 1,734,876 barrels were marketed, and further records were made in 1919, when the gross crop exceeded 2,000,000 barrels, and in 1922, when 1,891,850 barrels were packed and sold from the Annapolis valley and adjacent valleys, which comprise a district of about 100 miles long by from six to eleven miles wide.

There are records to show that in 1663 apples were being produced in the province of Quebec, and it is here that the celebrated Fameuse apple is thought to have originated. The capabilities of this province for the production of apples of the finest appearance and best quality are very great; but at present there are not sufficient apples grown for the local demand, and large quantities are therefore annually imported.

In Ontario, where the commercial production of all descriptions of fruit capable of cultivation in Canada has reached its highest development, apples have been grown from the middle of the eighteenth century; but commercial orcharding has developed only within the past 50 or 60 years, and was only made possible when the building of the railways permitted trees and fruit to be transported rapidly. The great winter apple districts include the border of lake Ontario extending back 30 miles and more from the lake, the shores of lake Huron and Georgian bay, several miles in depth, and the southwestern part of the province. Farther east and north, and including an area east of the Lake Huron district, there are large areas of land where the hardier varieties of apples are most suitable. In the Niagara fruit-growing district, besides apples, peaches, pears, plums and cherries, small fruits and grapes are produced upon a large scale.

In British Columbia commercial fruit-growing is of comparatively recent origin; but the development of commercial orcharding has been very rapid, especially during the last ten years. The first apple trees were planted about 1850, but not until after the completion of the Canadian Pacific railway in 1886 were there many trees planted for commercial purposes. The Census of 1891 gave the area devoted to all kinds of fruit as 6,500 acres; in 1921 the Census showed a total fruit acreage of 43,569 acres in the province. The most noted fruit district is that of the Okanagan valley, where are some of the finest orchards in the Dominion. The boxed apples from British Columbia are found in season on all the important markets in Great Britain and Europe. Pears, plums, peaches, apricots, cherries and small fruits are grown on a large scale.

The Fruit Marks Act, first passed by the Dominion Parliament in 1901, made the grading of commercial apples compulsory. In 1923 all previous legislation of this kind was replaced by the Fruit Act (13-14 Geo. V, c. 15), which provides for government inspection, imposes penalties for dishonest packing, and defines the grades under which the different descriptions of fruit shall be sold.

Census Statistics.—Statistics of the number of bearing and non-bearing fruit trees in 1921 were published on p. 252 of the 1925 edition, together with comparative figures for 1911 and are summarized in Table 30; from these it may be seen that only in peaches was there an increase during the decade in the number of bearing trees. Nevertheless, when the statistics of production, also collected at the census, are consulted, there is evident a great increase since 1910 in the production of apples, peaches, plums and cherries. This may indicate that to-day fruit-growing is on a much more scientific basis than in the past, and that the yield per bearing tree is larger because of the greater attention given to the selection of stock and the care of trees.

30.—Fruit Trees, Bearing and Non-bearing. Acreage of Small Fruits, and Fruit Production for all Canada in census years.

Kinds.	Trees, bearing.		Trees, non-bearing.		Total Production.		
	1911.	1921.	1911.	1921.	1900.	1910.	1920.
Orchard fruits—	No.	No.	No.	No.	bush.	bush.	bush.
Apples	10,617,372	9,802,218	5,599,804	2,649,740	18,626,186	10,618,666	17,475,414
Peaches	839,288	1,021,709	1,056,359	174,513	545,415	646,826	1,076,223
Pears	581,704	501,586	385,538	172,304	531,837	504,171	521,036
Plums	1,075,130	985,267	637,220	266,889	557,875	508,994	808,369
Cherries	741,992	688,504	495,082	195,999	336,751	238,974	502,447
All other	146,659	–	141,233	–	70,396	47,789	–
Total	**14,002,145**	**12,999,284**	**8,315,236**	**3,459,445**	**20,668,460**	**12,565,420**	**20,383,489**
Small fruits—	acres.	acres.			lb.	lb.	lb.
Grapes	9,836	7,090	–	–	24,302,634	32,898,438	33,269,412
					qt.	qt.	qt.
Strawberries						18,686,662	15,658,346
Raspberries	17,495	17,741	–	–	21,707,791	[1]	8,360,518
Currants and gooseberries						3,830,609	1,983,834
Other small fruits						9,000,208	843,407

[1] Included with other small fruits.

Annual Statistics of Fruit Production.—For each of the years 1919 to 1927, the Dominion Bureau of Statistics and the Fruit Branch of the Dominion Department of Agriculture have collected and published in co-operation statistics (1) of the quantities and values of commercial fruits produced in Canada, and (2) of the varieties and values of fruit trees, bushes and plants sold by nurserymen in Canada. Table **31**, following, shows the estimated production and value of commercial fruits in Canada for each of the five years 1923-1927.[2]

31.—Estimated Production and Value of Commercial Fruits in Canada, 1923-1927.

Years.	Total quantity.	Average price.	Total value.	Years.	Total quantity.	Average price.	Total value.
	brl.	$	$		bush.	$	$
Apples—				Cherries—			
1923	3,838,641	5·45	20,920,593	1923	203,125	3·56	722,440
1924	3,375,084	5·85	19,747,772	1924	100,340	3·36	337,775
1925	2,913,768	5·50	16,024,165	1925	114,925	3·56	409,210
1926	2,954,370	3·28	9,688,162	1926	201,640	2·86	577,040
1927	2,810,600	3·70	10,411,035	1927	216,800	3·62	784,470
				Strawberries—	qt.		
Pears—	bush.			1923	8,652,200	0·17	1,513,230
1923	227,335	2·42	550,587	1924	7,932,000	0·18	1,398,910
1924	196,809	2·40	471,924	1925	8,330,000	0·18	1,460,650
1925	156,422	2·13	332,735	1926	9,739,000	0·14	1,402,830
1926	266,440	1·79	475,698	1927	10,946,200	0·14	1,516,145
1927	332,200	2·00	663,730	Raspberries—			
				1923	4,496,840	0·23	1,044,001
Plums and prunes—				1924	2,000,450	0·20	401,012
1923	348,482	2·00	696,964	1925	1,962,000	0·21	405,840
1924	238,978	2·11	504,460	1926	4,744,500	0·15	702,330
1925	79,562	1·94	154,288	1927	5,232,700	0·15	784,000
1926	346,800	1·30	450,840	Other Berries—			
1927	263,200	1·80	473,780	1923	2,527,700	0·20	494,191
Peaches—				1924	2,532,000	0·19	500,020
1923	403,660	2·27	916,050	1925	2,700,000	0·21	524,000
1924	154,384	2·62	404,663	1926	4,195,000	0·11	476,550
1925	201,840	2·71	547,772	1927	3,737,000	0·13	471,420
1926	237,950	2·54	603,658	Grapes—	lb.		
1927	347,580	3·03	1,051,765	1923	42,185,077	0·06	2,742,036
Apricots—				1924	24,500,000	0·06	1,470,000
1925	4,202	4·75	19,960	1925	24,000,000	0·07	1,680,000
1926	56,650	2·25	127,462	1926	24,000,000	0·03	720,000
1927	18,000	3·74	67,250	1927	34,560,000	0·04	1,382,400

[2] Reports of fruit production have been published in pamphlet form by the Dominion Bureau of Statistics in 1922, 1924, 1925, 1926 and 1927. The first report for the year 1919 was published in the Monthly Bulletin of Agricultural Statistics, August, 1920, pp. 211–222.

Tree Nursery Industry.—The first Canadian commercial nursery was estab-ished near Fonthill, Ont., and it was followed within a few years by the estab-hment of a nursery in Toronto by a Rochester, N.Y., firm. Since that time the dustry has steadily spread as the country has developed, until to-day there are proximately 170 firms growing or dealing in nursery stock of all kinds, including uit trees. Canadian nurserymen have made great advancement in the type and rdiness of stock used for grafting and budding purposes, greatly enhancing the istance of the trees against winter injury, an important factor in Canadian hharding. The great problem of mixing varieties has been solved by the recent vestigations carried out by the various Experimental Stations, leading to a stem of identifying the different varieties in the nursery row. Identification of e varieties of apples has proved possible of accomplishment by any person er a few months' study of the varietal characteristics, while other fruits under udy, such as peaches and pears, are proving equally easy to identify.

Table 32 shows the total numbers and values of fruit trees, bushes and plants d by nurserymen for the four years 1924-27. For 1919 and 1920, see the Canada ar Book of 1921, p. 257, and for 1921 and 1923, see the Canada Year Book of 26, p. 241.

—Numbers and Values of Fruit Trees, Bushes and Plants, sold by Nurserymen in Canada, years ended May 31, 1924-27.

Description of Tree, Bush or Plant.	Number Sold.				Total Value.			
	1924.	1925.	1926.	1927.	1924.	1925.	1926.	1927
	No.	No.	No.	No.	$	$	$	$
ples—								
arly	47,351	58,549	47,750	54,682	21,227	29,330	21,549	23,698
all	66,774	121,043	74,817	83,543	30,728	60,084	30,780	36,176
inter	203,608	277,431	240,149	174,828	87,148	119,011	84,884	66,928
rab apples	14,184	18,642	15,518	23,090	5,747	8,127	7,526	8,644
Total apples	331,917	475,665	378,234	336,143	144,850	216,552	144,739	135,446
rs	42,889	45,269	46,974	40,260	26,920	28,391	24,695	19,148
ms	57,133	57,415	62,866	54,474	34,396	32,604	29,327	21,148
ches	74,302	73,656	90,035	103,872	20,264	23,942	23,751	24,300
rries	55,540	51,944	60,233	60,517	33,063	35,748	34,066	29,365
icots	2,259	1,893	6,297	1,022	904	757	2,879	509
nces	104	283	262	143	61	136	115	59
ckberries	29,851	38,772	39,357	28,092	1,093	2,686	2,465	1,846
rants	129,270	137,779	109,512	151,312	11,511	20,475	12,342	13,551
pes	293,018	198,501	258,746	302,059	27,714	23,370	22,667	20,590
seberries	67,369	66,721	58,236	74,294	9,163	15,313	11,579	12,179
pberries	513,078	449,720	658,869	535,975	20,726	25,719	36,229	18,747
anberries	1,805	2,348	1,178	1,372	258	191	111	159
wberries	2,212,645	1,521,655	1,784,865	2,036,882	19,503	17,456	23,568	20,614
Total Value	–	–	–	–	**350,426**	**443,340**	**368,533**	**317,661**

Subsection 7.—Special Agricultural Crops.

Maple Sugar and Syrup.—The Canada Year Book, 1924, contained a des-ption of the process of maple sugar-making on pages 247 and 248. Table 33 es the production and value of maple sugar and syrup in Canada for the years 6, 1927 and 1928, as estimated by the Dominion Bureau of Statistics.[1]

[1] For details see Monthly Bulletin of Agricultural Statistics for June, 1928, pp. 214-215.

33.—Production and Value of Maple Sugar and Maple Syrup in Canada, by Provinces, 1926-1928.

Provinces and Years.	Maple Sugar.			Maple Syrup.			Total value of sugar and syrup.
	Quantity.	Average price per lb.	Value.	Quantity.	Average price per gallon.	Value.	
	lb.	cents.	$	gallons.	$	$	$
Canada.....**1926**	**7,137,303**	**19**	**1,320,837**	**1,746,570**	**2·05**	**3,575,538**	**4,896,375**
1927	**9,831,697**	**14**	**1,365,045**	**2,154,705**	**1·66**	**3,569,766**	**4,934,811**
1928	**13,798,109**	**16**	**2,269,686**	**1,686,583**	**1·97**	**3,314,902**	**5,584,588**
Nova Scotia.....1926	32,270	36	11,617	3,640	2·92	10,629	22,246
1927	53,950	30	16,085	4,414	2·60	11,476	27,561
1928	86,330	35	30,216	10,987	2·63	28,896	59,112
New Brunswick.....1926	23,180	32	7,418	3,946	2·75	10,852	18,270
1927	47,000	32	15,040	5,744	2·55	14,647	29,687
1928	51,570	27	13,924	8,415	2·20	18,513	32,437
Quebec.....1926	6,405,143	18	1,152,926	960,772	1·82	1,748,605	2,901,531
1927	9,104,174	13	1,183,543	1,423,986	1·35	1,922,381	3,105,924
1928	13,090,029	16	2,094,405	909,646	1·66	1,510,012	3,604,417
Ontario.....1926	676,710	22	148,876	778,212	2·32	1,805,452	1,954,328
1927	626,573	24	150,377	720,561	2·25	1,621,262	1,771,63
1928	570,180	23	131,141	757,535	2·32	1,757,481	1,888,62 9 2

The table shows that for the whole of Canada there was an estimated increase of 3,966,412 lb. of maple sugar, a decrease of 468,122 gal. of maple syrup and an increase of $649,777 in the combined value of the two products in 1928 as compared with 1927. The production of maple sugar in Canada was the largest yet reported and the total value of maple products was the largest since 1924, when the estimated value of maple sugar and syrup amounted to $5,991,141.

Sugar Beets and Beetroot Sugar.—A brief account of the development of the beetroot sugar industry in Canada will be found in the Canada Year Book, 1925, pp. 255-256. At the present time two companies are operating in Canada, the Dominion Sugar Co., Ltd., with factories at Chatham and Wallaceburg in Ontario, and the Canadian Sugar Factory, Ltd., with a plant at Raymond, Alberta.

Table 34 shows the area, yield and value of sugar beets grown in Canada in the years 1911-1927.

34.—Area, Yield and Value of Sugar Beets in Canada and Production of Refined Beetroot Sugar, 1911-1927.

(Production contracted for by factories.)

Years.	Acres grown.	Yield per acre.	Total yield.	Average price per ton.	Total value.	Production of refined beetroot sugar.
	acres.	tons.	tons.	$	$	lb.
911.....	20,677	8·50	175,000	6·59	1,154,000	21,329,689
1 912.....	18,900	10·50	201,000	5·00	1,005,000	26,767,287
913.....	17,000	8·75	148,000	6·12	906,000	26,149,216
914.....	12,100	9·00	108,600	6·00	651,000	31,314,763
915.....	18,000	7·75	141,000	5·50	775,500	39,515,802
916.....	15,000	4·75	71,000	6·20	440,000	17,024,377
917.....	14,000	8·40	117,600	6·75	793,800	23,376,850
918.....	18,000	11·25	204,000	12·71	2,593,715	50,092,835
919.....	18,800	9·50	180,000	14·61	2,630,027	37,839,271
920.....	34,491	9·94	343,000	15·47	5,307,243	89,280,719
921.....	25,535	7·80	199,334	9·90	1,974,384	52,862,377
922.....	14,955	8·55	127,807	7·56	966,521	29,911,770
923.....	17,941	8·87	159,200	12·08	1,922,668	39,423,160
924.....	31,111	9·50	295,177	5·78	1,704,791	85,770,709
925.....	34,803	10·63	370,047	7·27	2,688,302	72,819,919
926.....	30,073	8·90	267,754	8·54	2,286,761	70,388,105
927.....	25,961	7·96	206,713	9·73	2,012,134	60,969,131

At the estimated average wholesale price of 6.06 cents per lb., the total value of the beetroot sugar produced in 1927 is $3,694,303, as compared with 6·1 cents per lb. and $4,269,076 total value in 1926, and 7·1 cents per lb. and $5,206,624 total value in 1925.

The estimated production of sugar beets in the principal beet-sugar producing countries of the world was, in 1927, 67·1 million short tons from 7,010,000 acres. The production in 1927 of the largest beet-growing countries was, in thousands of short tons, as follows:—Germany, 11,965; Russia, 10,872; Czechoslovakia, 8,955; United States, 7,737; France, 6,143; Poland, 3,990; Italy, 2,222; Belgium, 2,186; Netherlands, 2,041; Spain, 1,675; Great Britain and Northern Ireland, 1,617; Hungary, 1,604; Rumania, 1,383; Denmark, 1,207.

Tobacco.—According to the census, the total area under tobacco in 1921 was 16,628 acres. Statistics for 1927 show an acreage of 44,028, the largest figure on record. The farm value of the crop, amounting to $4,358,898 in 1924, $7,002,400 in 1925 and $7,379,480 in 1926, showed an increase to $9,112,278 in 1927.

Table 35 summarizes the acreage, the average yield per acre and the total yield of tobacco in Canada, also for the provinces of Quebec and Ontario, for the census years 1900 and 1910 and continuously from 1920 to 1928. For the years 1911 and 1921 the census figures for the acreage alone are also given.

35.—Area and Yield of Tobacco in Canada, by Provinces, 1900, 1910, 1911 and 1920-28.

Years.	Quebec.	Ontario.	Canada.	Quebec.	Ontario.	Canada.	Quebec.	Ontario.	Canada.
	acres.	acres.	acres.	000 lb.	000 lb.	000 lb.	lb. per acre.	lb. per acre.	lb. per acre.
1900[1]	8,661	3,144	11,906[1]	7,565	3,504	11,267[1]	881	1,114	946[1]
1910[1]	11,818	7,017	18,928[1]	10,115	7,499	17,632[1]	856	1,068	931[1]
1911[1]	12,134	13,591	25,826[1]	–	–	–	–	–	–
1920[1]	17,252	19,621	36,891[1]	13,366	19,279	32,660[1]	775	983	885[1]
1921[1]	9,958	6,663	16,628[1]	–	–	–	–	–	–
1921	5,256	6,553	11,809	6,127	7,122	13,249	1,166	1,091	1,124
1922	16,573	9,189	25,762	14,916	11,032	25,948	900	1,201	1,007
1923	15,302	8,630	23,932	10,500	10,797	21,297	680	1,251	890
1924	8,044	13,273	21,317	6,576	12,135	18,711	817	914	878
1925	9,554	18,261	27,825[2]	8,632	20,623	29,266[4]	910	1,130	1,052
1926	9,808	23,493	33,356[3]	8,693	20,064	28,824[5]	886	854	864
1927	10,018	33,650	44,028[6]	7,824	35,622	43,910[7]	769	1,095	997[8]
1928[9]	10,368	32,654	43,138[10]	8,546	32,266	40,956[11]	824	987	949[12]

[1] Census data. The totals for Canada include other provinces as follows:—1900, 101 acres, 107,000 lb. 1910, 93 acres, 18,820 lb.; 1911, 101 acres; 1920, 18 acres, 15,296 lb.; 1921, 7 acres. [2] Including 10 acres in British Columbia. [3] Including 55 acres in British Columbia. [4] Including 11,000 lb. in British Columbia. [5] Including 67,000 lb. in British Columbia. [6] Including 360 acres in British Columbia. [7] Including 470,000 lbs. in British Columbia. [8] Average includes a yield of 1,305 lb. per acre in British Columbia. [9] Preliminary figures. [10] Including 116 acres in British Columbia. [11] Including 164,200 lb. in British Columbia. [12] Average includes a yield of 1,415 lb. per acre in British Columbia.

Onions.—Table 36 shows the area and commercial production of onions in Canada for each of the years 1925 to 1928, as estimated by the Fruit Branch of the Department of Agriculture.

36.—Area and Commercial Production of Onions in Canada, 1925-1928.

Provinces.	1925.		1926.		1927.		1928[1].	
	acres.	tons.	acres.	tons.	acres.	tons.	acres.	tons.
Quebec	610	3,172	262	1,622	247	1,219	300	1,526
Ontario	1,630	13,936	1,455	10,845	1,580	15,800	1,531	8,400
British Columbia	1,300	12,350	1,562	12,970	1,233	8,230	1,035	8,730
Total	**3,540**	**29,458**	**3,279**	**25,437**	**3,060**	**25,249**	**2,856**	**18,656**

[1] Preliminary figure.

Flax Fibre.—Table 37, compiled from information furnished by the Economic Fibre Division of the Dominion Experimental Farms, shows the area, production and value of flax fibre and allied products in Canada for each of the years 1915 to 1928.

37.—Area, Production and Value of Flax Fibre, etc., in Canada, 1915-1928.

Years.	Area.	Seed.	Fibre.	Tow.	Seed.	Fibre.	Tow.	Total.
	acres.	bush.	lb.	tons.	$	$	$	$
1915	4,000	48,000	1,600,000	80	76,800	320,000	2,800	399,600
1916	5,200	25,000	600,000	75	75,000	180,000	15,000	270,000
1917	8,000	72,000	2,800,000	–	396,000	1,540,000	–	1,936,000
1918	20,000	110,000	6,200,000	900	930,769	1,085,000	270,000	2,235,769
1919	20,262	90,000	4,416,000	1,162	967,500	3,975,400	581,000	4,942,900
1920	31,300	217,000	7,440,000	1,860	434,000	5,952,000	744,000	7,130,000
1921	6,515	52,120	1,824,200	372	469,080	1,550,570	148,800	2,168,450
1922	1,200	10,800	360,000	96	21,600	72,000	11,520	105,120
1923	3,300	20,000	272,650	74½	50,000	111,375	4,440	165,815
1924	5,760	69,120	1,785,600	18¾	172,800	535,500	3,750	712,050
1925	6,200	68,200	1,440,000	2,325	136,400	201,600	116,250	454,250
1926	4,025	48,300	–	2,075	96,600	–	111,250	207,850
1927	4,260	36,080	–	4,260	108,240	–	213,000	321,240
1928	6,880	41,280	–	6,880	165,120	–	344,000	509,120

The area sown to flax for fibre in Canada for the year 1928 was 6,880 acres, of which 6,770 acres were in the province of Ontario, 40 acres in Nova Scotia, 20 acres in New Brunswick and 50 acres in Quebec.

Hives and Honey.—A table on page 277 of the 1925 Year Book shows the production and value of honey and beeswax in 1920, according to the Census of 1921. The principal honey-producing provinces were Ontario and Quebec, which between them produced in 1920 more than 94 p.c. of the recorded total of 6,461,450 lb., valued at $1,633,251.

There are at present no uniform annual statistics of hives and honey for all the provinces, but a synopsis of the existing provincial estimates for recent years was given in the Monthly Bulletin of Agricultural Statistics for May, 1928, pp. 160-163. These estimates showed a large increase since 1920, the total estimated honey production in 1927 being about 24,148,270 lb. and the average value per lb. 13 cents.

Subsection 8.—Farm Labour and Wages.

Average Wages of Farm Help.—The average wages paid to farm helpers in Canada for the year 1927 show practically no change from 1926. The cost of farm labour reached its highest point in 1920. In the next two years there was a rapid drop, so that the average of yearly wages including board for male help in 1922 was nearly 28 p.c. less than in 1920. Since 1922 the trend has been slightly upward, the average for 1925 representing an increase of 8 p.c. in the three years. In 1926 there was a very slight reduction, followed by an increase in 1927. On the whole, farm wages may be said to have remained fairly uniform for the past five years. Although there was a drop of about 28 p.c. in the average wages in the two years following 1920, there was a much greater drop in the average price of farm products. It is not surprising, therefore, that the upward readjustment of those prices in the past few years has had little effect upon wages. Farm wages in 1928 showed a slight upward trend as compared with 1927.

In Table 38 the value of wages and board is given for the years 1914, 1920, 1925-1927, both for the summer season and for the year, distinction being made in all cases between wages and board.

38.—Average Wages of Farm Help in Canada, as estimated by Crop Correspondents, 1914, 1920, 1925-27.

NOTE.—M=Males. F=Females.

Provinces.	Years	Per month in summer season.						Per year.					
		Wages.		Board.		Wages and Board.		Wages.		Board.		Wages and Board.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
		$	$	$	$	$	$	$	$	$	$	$	$
Canada	1914	21	8	14	11	36	19	155	57	168	132	323	189
	1920	60	27	26	20	86	47	543	275	278	217	821	492
	1925	40	22	23	19	63	41	383	244	258	218	641	462
	1926	41	23	23	19	64	42	384	242	255	213	639	455
	1927	41	23	23	19	64	42	396	247	262	220	658	467
P. E. Island	1914	15	5	10	8	25	13	101	40	120	96	221	136
	1920	42	18	18	14	60	32	371	212	201	160	572	272
	1925	31	18	16	13	47	31	293	175	176	138	469	313
	1926	31	17	16	13	47	30	294	180	190	145	484	325
	1927	30	17	16	13	47	30	285	184	187	150	472	334
Nova Scotia	1914	20	7	11	8	31	15	169	59	132	96	301	155
	1920	49	21	24	17	73	38	472	218	263	190	735	408
	1925	36	18	20	15	56	33	347	199	221	161	568	360
	1926	35	18	19	14	54	32	350	194	238	175	588	369
	1927	36	17	19	13	55	30	350	189	212	151	562	340
New Brunswick	1914	21	7	11	8	32	15	170	69	132	96	302	165
	1920	56	19	23	16	79	35	531	213	254	178	785	391
	1925	37	18	17	13	54	31	370	210	191	151	561	361
	1926	39	17	18	14	57	31	354	176	175	143	529	319
	1927	37	18	20	14	57	32	372	193	216	154	588	347
Quebec	1914	21	7	13	9	34	16	140	44	156	108	296	152
	1920	62	24	24	16	86	40	524	235	243	172	767	407
	1925	37	19	19	13	56	32	340	190	196	141	536	331
	1926	38	19	19	13	57	32	345	185	202	141	547	326
	1927	39	19	19	14	58	33	347	183	190	146	537	329
Ontario	1914	19	7	13	10	32	17	141	52	156	120	297	172
	1920	52	25	23	19	75	44	474	259	262	211	736	470
	1925	34	22	20	17	54	39	326	227	222	182	548	409
	1926	37	22	21	17	58	39	349	232	234	187	583	419
	1927	37	22	22	16	59	38	366	250	239	195	605	445
Manitoba	1914	24	9	15	13	39	22	184	70	180	156	364	226
	1920	70	34	28	24	98	58	650	312	325	247	975	559
	1925	38	21	22	19	60	40	357	221	260	215	617	436
	1926	38	22	22	18	60	40	367	233	247	205	614	438
	1927	38	21	22	19	60	40	358	222	254	217	612	439
Saskatchewan	1914	24	9	17	14	41	23	162	67	204	168	366	235
	1920	72	35	30	25	102	60	667	364	336	289	1,003	653
	1925	42	22	24	21	66	43	396	257	268	234	664	491
	1926	43	24	24	21	67	45	406	261	272	237	678	498
	1927	43	24	24	21	67	45	415	260	277	236	692	496
Alberta	1914	24	10	16	14	40	24	173	68	192	168	365	236
	1920	76	36	31	26	107	62	697	360	341	278	1,038	638
	1925	44	27	24	22	68	49	421	277	280	244	701	521
	1926	45	25	24	22	69	47	422	271	279	249	701	520
	1927	45	27	25	22	70	49	446	294	290	250	736	544
British Columbia	1914	27	13	21	18	48	31	208	108	252	216	460	324
	1920	64	36	31	27	95	63	684	431	349	311	1,033	742
	1925	46	26	26	21	72	47	470	282	300	232	770	514
	1926	49	27	27	23	76	50	452	278	315	254	767	532
	1927	51	28	27	23	78	51	498	300	306	256	804	556

Subsection 9.—Prices of Agricultural Produce.

The average monthly cash prices of representative grades of Canadian wheat, oats, barley, flax and rye in the Winnipeg market, basis in store at Fort William and Port Arthur, will be found for each month since January, 1926, in Table **39**; the monthly average prices of Canadian wheat, oats and barley at Liverpool are shown for each month since January, 1927, in Table **40**, while the average yearly prices of British-grown wheat, barley and oats in the home market are furnished in Table **41**; in both of these latter tables British currency is converted into Canadian currency at par of exchange (£1 = $4.86⅔). The average monthly prices of flour, bran and shorts at Montreal, Toronto, Winnipeg, Minneapolis and Duluth are given for 1927 in Table **42**.

The yearly average prices per cwt. of Canadian live stock at Toronto, Montreal, Winnipeg and Edmonton are given for the years 1925, 1926 and 1927 in Table **43**, and the average monthly prices in 1927 at these centres and at Calgary in Table **44**.

The course of producers' prices of agricultural commodities in Canada since 1913 is shown in Table **45** by the method of index numbers, the accompanying diagram showing the trends of the producers' prices obtained for the chief crops down to 1928. The table and the diagram show the recovery of agricultural prices from their low level in 1922 and 1923, and the decline in 1927 and 1928.

39.—Monthly Average Cash Prices per bushel at Winnipeg of Representative Grades of Canadian Wheat, Oats, Barley, Flax and Rye, basis in store at Fort William and Port Arthur, 1926-1928, and Yearly Average Prices for crop years ended 1925-1928.

NOTE.—For similar figures for 1922-25, see p. 260 of the 1925 Year Book.

Months.	Wheat, No. 2 N.	Oats, No. 2 C.W.	Barley, No. 3 C.W.	Flax, No. 1 N.W.C.	Rye, No. 2 C.W.
1926.	cts.	cts.	cts.	cts.	cts.
January	156·5	47·4	61·3	213·9	101·3
February	154·7	45·4	59·0	204·8	94·2
March	148·4	47·4	58·5	191·8	85·6
April	157·0	53·1	63·6	196·1	89·3
May	153·8	49·6	61·4	193·1	84·2
June	153·1	50·0	61·9	194·6	88·5
July	159·6	49·5	62·8	207·6	101·5
August	151·0	48·7	61·7	210·8	96·3
September	143·8	52·5	63·0	205·4	93·8
October	143·5	58·6	64·6	192·4	95·5
November	141·0	59·6	63·6	191·0	92·5
December	133·4	56·2	63·6	187·7	90·5
1927.					
January	135·7	58·4	67·4	186·8	96·2
February	139·7	61·6	69·6	190·5	100·9
March	142·7	60·4	71·2	189·5	99·2
April	145·1	57·4	79·4	191·5	101·5
May	155·8	61·9	87·5	200·2	109·5
June	161·1	64·0	92·1	199·2	115·2
July	162·1	65·7	88·5	194·9	105·0
August	159·9	66·5	84·3	197·0	93·4
September	145·1	64·7	79·0	195·3	94·6
October	144·1	63·7	78·2	187·8	93·6
November	145·1	59·4	81·2	183·1	101·9
December	140·6	61·4	83·3	180·2	104·0
1928.					
January	142·8	62·3	83·3	183·0	102·8
February	142·6	64·1	86·2	183·6	105·0
March	148·1	68·1	91·2	190·3	116·2
April	156·3	71·9	93·0	193·9	129·2
May	157·2	75·1	91·7	200·9	134·8
June	142·6	64·8	89·2	197·0	118·2
July	130·9	58·9	83·0	186·5	105·3
Average for crop year ended July, 1925	**168·5**	**59·6**	**88·5**	**241·4**	**121·0**
Average for crop year ended July, 1926	**151·2**	**49·6**	**63·9**	**213·8**	**89·8**
Average for crop year ended July, 1927	**146·2**	**58·8**	**72·7**	**195·0**	**99·7**
Average for crop year ended July, 1928	**146·3**	**65·2**	**85·3**	**189·9**	**129·9**

40.—Monthly Average Prices at Liverpool of Canadian Wheat, Oats and Barley, 1927-1928.

NOTE.—Quotations are given in Canadian money at par of exchange.

Months.	Wheat (per bushel of 60 lb.)			Oats (per bush. of 34 lb.)	Barley (per bush. of 48 lb.)
	No. 1.	No. 2.	No. 3.		
1927.	cts.	cts.	cts.	cts.	cts.
January	–	173	163	–	–
February	179	–	–	–	105
March	180	–	–	–	105
April	–	178	172	–	105
May	188	181	174	–	–
June	–	182	174	84	–
July	188	182	171	83	114
August	187	182	170	–	114
September	176	173	159	–	–
October	–	–	160	–	–
November	–	–	–	–	–
December	–	–	154	–	110
1928.					
January	–	–	–	–	112
February	–	–	156	–	114
March	–	–	157	–	115
April	–	–	175	–	–
May	–	163	170	98	–
June	–	162	157	97	–
July	–	–	147	87	–
August	–	–	136	82	–
September	–	–	135	83	–
October	–	–	145	82	–
November	–	–	147	–	–
December	–	–	–	–	–

41.—Yearly Average Prices of Home-Grown Wheat, Barley and Oats in England and Wales, 1902-1927.

SOURCE:—"London Gazette", published pursuant to Sec. 8 of the Corn Returns Act, 1882, and the Corn Sales Act, 1921.

NOTE.—By the Corn Sales Act, 1921, the legal unit was changed from quarters of 8 bushels to long cwt., the change becoming compulsory on Jan. 1, 1923. The long cwt. is 112 lbs.

Years.	Wheat.		Barley.		Oats.		Years.	Wheat.		Barley.		Oats.	
	per qr.	per bush.	per qr.	per bush.	per qr.	per bush		per qr.	per bush.	per qr.	per bush.	per qr.	per bush.
	s. d.	$	s. d.	$	s. d.	$		s. d.	$	s. d.	$	s. d.	$
1902	28 1	0·85	25 8	0·78	20 2	0·61	1916	58 5	1·78	53 6	1·56	33 5	0·89
1903	26 9	0·81	22 8	0·69	17 2	0·52	1917	75 9	2·30	64 9	1·89	49 10	1·32
1904	28 4	0·86	22 4	0·68	16 4	0·50	1918	72 10	2·22	59 0	1·72	49 4	1·31
1905	29 8	0·90	24 4	0·74	17 4	0·53	1919	72 11	2·22	75 9	2·21	52 5	1·39
1906	28 3	0·86	24 2	0·73	18 4	0·56	1920	80 10	2·46	89 5	2·60	56 10	1·51
1907	30 7	0·93	25 1	0·76	18 10	0·57	1921	71 6	2·17	52 2	1·52	34 2	0·90
1908	32 0	0·97	25 10	0·79	17 10	0·54	1922	47 11	1·46	40 3	1·18	29 1	0·77
1909	36 11	0·82	26 10	0·82	18 11	0·58		per long cwt.	per bush.	per long cwt.	per bush.	per long cwt.	per bush.
1910	31 8	0·96	23 1	0·70	17 4	0·53							
1911	31 8	0·96	27 3	0·83	18 10	0·57	1923	9 10	1·28	9 5	0·98	9 7	0·71
1912	34 9	1·06	30 8	0·93	21 6	0·65	1924	11 6	1·50	13 1	1·36	9 9	0·72
1913	31 8	0·96	27 3	0·83	19 1	0·58	1925	12 2	1·59	11 9	1·23	9 9	0·72
1914	34 11	1·06	27 2	0·83	20 11	0·64	1926	12 5	1·62	10 4	1·08	9 0	0·66
1915	52 10	1·61	37 4	1·13	30 2	0·92	1927	11 6	1·50	11 10	1·23	9 2	0·68

42.—Average Monthly Prices of Flour, Bran and Shorts at Principal Markets, 1927.

SOURCE:—For Montreal, "Trade Bulletin"; for Toronto, dealers' quotations; for Winnipeg and U.S. cities, "The Northwestern Miller", Minneapolis.

NOTE.—The ton=2,000 lb. and the barrel=196 lb.

Months.	Montreal.				Toronto.			
	Flour, Manitoba Standard grade.	Flour, Ontario, delivered at Montreal.	Bran.	Shorts.	First Patents Flour (Jute bags).	First Patents Flour (Cotton bags).	Bran.	Shorts.
	Per brl.	Per brl.	Per ton.	Per ton.	Per brl.	Per brl.	Per ton.	Per ton.
	$	$	$	$	$	$	$	$
January	7·98	6·12	32·25	34·25	7·90	8·05	32·25	34·25
February	8·10	–	32·25	34·25	8·10	8·25	32·25	34·25
March	8·00	–	32·25	34·25	8·10	8·15	32·25	34·25
April	8·00	–	32·25	34·35	8·00	8·15	32·25	34·25
May	8·56	6·08	32·25	34·25	8·50	8·65	32·25	34·25
June	8·96	6·53	32·25	34·25	9·10	9·15	32·25	34·25
July	8·93	6·65	32·25	35·00	8·90	9·05	32·25	35·25
August	8·74	6·45	32·25	36·25	8·90	9·05	32·25	36·25
September	8·21	6·05	32·25	36·25	8·20	8·35	32·25	36·25
October	7·94	5·98	30·25	32·75	8·00	8·15	30·25	32·25
November	8·03	5·95	32·25	34·25	8·10	8·25	31·50	33·50
December	8·03	5·95	34·25	36·25	8·00	8·15	33·75	35·75

Months.	Winnipeg.			Minneapolis.			Duluth.
	Flour.	Bran.	Shorts.	Flour.	Bran.	Shorts.	Flour.
	Per brl. $	Per ton. $	Per ton. $	Per brl. $	Per ton. $	Per ton. $	Per brl. $
January	8·40	25·00	27·00	7·73—7·96	26·80	27·80—28·10	7·80—8·05
February	8·55	26·00	–	7·75—7·95	26·50—27·50	28·50—29·00	7·70—7·95
March	8·55	26·00	28·00	7·65—7·75	26·50—26·75	28·50—29·00	7·40—7·65
April	8·55	26·00	28·00	7·50—7·70	–	–	7·20—7·45
May	9·02	26·00	28·00	8·24—8·45	28·00—28·12	28·87—29·62	7·61—7·86
June	9·25	26·80—27·00	26·80—29·00	8·23—8·39	26·50—26·63	28·88—29·37	7·78—8·03
July	9·25	27·00	28·25	8·03—8·27	24·90—25·00	30·70—31·60	7·84—8·90
August	9·25	27·00	29·00	7·85—8·05	26·63—26·88	34·50—34·88	7·46—7·71
September	9·10	27·00	29·00	7·31—7·74	25·75—25·88	29·13—30·00	7·20—7·50
October	8.70-8.83	27·00	29·00	7·45—7·78	26·10—26·30	27·00—27·80	7·18—7·53
November	8·55	26·50	28·50	7·34—7·60	28·38—28·63	29·13—29·50	7·08—7·43
December	8·65	27·25	29·25	7·28—7·65	30·00—30·25	30·38—30·63	7·28—7·63

43.—Average Prices per cwt. of Canadian Live Stock at Principal Markets, 1925-1927.

SOURCE:—Markets Intelligence Division, Live Stock Branch, Dominion Department of Agriculture.

Classification.	Toronto.			Montreal.		
	1925.	1926.	1927.	1925.	1926.	1927.
	$	$	$	$	$	$
Steers—heavy finished	7·80	7·61	8·27	8·42	8·22	9·44
Steers—1,000–1,200 lb., good	7·35	7·33	8·20	7·29	7·12	8·07
Steers—1,000–1,200 lb., common	5·92	6·07	7·20	5·75	6·07	7·28
Steers—700–1,000 lb., good	7·05	7·05	7·94	6·41	6·93	7·88
Steers—700–1,000 lb., common	5·61	5·69	7·04	5·39	5·55	6·49
Heifers, good	6·98	7·10	7·92	6·40	6·53	7·37
Heifers, fair	5·90	6·09	7·23	5·22	5·63	6·53
Heifers, common	4·77	4·98	6·40	4·20	4·52	5·36
Cows, good	5·05	5·37	6·14	5·05	5·33	6·32
Cows, common	3·80	4·08	4·88	3·78	4·01	4·63
Bulls, good	5·00	5·14	5·81	4·53	5·54	6·00
Bulls, common	3·58	4·01	4·61	3·36	3·60	4·07
Canners and cutters	2·38	2·56	3·08	2·57	2·44	3·13
Calves, veal	9·10	9·94	10·44	7·18	8·38	8·75
Calves, grass	4·93	4·99	5·62	4·63	4·53	5·08
Stockers—450–800 lb., good	5·05	5·46	6·50	–	–	–
Stockers—450–800 lb., fair	4·25	4·71	5·83	–	–	–
Feeders—800–1,000 lb., good	6·12	6·19	7·02	–	–	–
Feeders—800–1,000 lb., fair	4·96	5·34	6·29	–	–	–
Hogs (weighed off cars), select bacon	14·12	14·71	11·05	13·46	13·81	11·18
Hogs (weighed off cars), thick, smooth	12·85	13·32	10·35	13·10	13·54	10·72
Hogs (weighed off cars), heavies	12·36	12·93	9·65	13·25	13·71	10·61
Hogs (weighed off cars), shop	11·75	12·13	9·36	12·95	13·38	10·55
Hogs (weighed off cars), sows, No. 1	10·10	10·14	7·58	10·45	10·92	8·00
Hogs (weighed off cars), stags	6·88	7·71	4·89	6·50	–	5·08
Lambs, good	13·55	13·05	12·31	12·24	11·85	11·35
Lambs, common	11·90	10·87	10·47	11·45	11·31	10·23
Sheep, heavy	5·75	5·47	5·37	6·10	6·87	6·10
Sheep, light	6·95	6·82	6·39	6·25	6·34	5·83
Sheep, common	3·45	3·52	3·45	5·60	4·45	4·17

Classification.	Winnipeg.			Edmonton.		
	1925.	1926.	1927.	1925.	1926.	1927.
	$	$	$	$	$	$
Steers—heavy finished	5·88	6·36	7·51	5·49	6·10	7·13
Steers—1,000–1,200 lb., good	5·88	5·99	7·28	5·71	5·76	7·38
Steers—1,000–1,200 lb., common	4·21	4·75	5·88	3·78	4·20	5·27
Steers—700–1,000 lb., good	5·94	6·12	7·40	5·81	5·85	7·84
Steers—700–1,000 lb., common	4·12	4·64	5·83	3·51	4·09	5·40
Heifers, good	5·21	5·66	6·74	4·54	4·97	5·94
Heifers, fair	4·34	4·76	5·68	3·62	3·92	5·03
Heifers, common	3·25	3·98	4·84	2·62	2·99	4·15
Cows, good	4·00	4·45	5·33	3·64	4·12	5·10
Cows, common	3·08	3·44	4·12	2·95	3·08	3·94
Bulls, good	3·00	3·57	4·33	2·35	2·97	3·67
Bulls, common	2·25	2·90	3·58	1·67	2·13	3·98
Canners and cutters	1·92	2·17	3·04	1·79	2·13	2·66
Oxen	2·92	–	–	3·29	–	–
Calves, veal	5·20	5·82	7·25	5·30	4·96	6·59
Calves, grass	–	–	–	–	–	–
Stockers—450–800 lb., good	3·80	4·44	5·42	3·51	3·99	5·30
Stockers—450–800 lb., fair	2·85	3·48	4·45	2·77	3·16	4·53
Feeders—800–1,000 lb., good	4·53	5·07	6·31	4·62	4·66	5·87
Feeders—800–1,000 lb., fair	3·52	4·22	5·28	3·68	3·77	4·97
Hogs (fed and watered), select bacon	12·55	13·23	10·08	12·60	13·34	10·68
Hogs (fed and watered), thick, smooth	11·31	12·17	9·62	11·33	12·20	10·09
Hogs (fed and watered), heavies	10·70	11·89	9·10	10·40	12·03	9·14
Hogs (fed and watered), shop	10·15	11·54	8·84	10·22	11·91	9·55
Hogs (fed and watered), sows, No. 1	9·33	9·68	7·03	9·34	9·61	7·66
Hogs (fed and watered), stags	4·26	6·40	5·36	3·60	4·65	4·46
Lambs, good	11·41	10·85	11·08	11·86	10·41	10·75
Lambs, common	8·89	8·41	8·35	9·29	7·17	7·96
Sheep, heavy	–	6·41	6·15	6·29	5·61	6·29
Sheep, light	6·78	7·11	6·57	7·31	6·32	6·76
Sheep, common	4·24	4·34	4·05	4·39	3·69	4·02

44.—Average Monthly Prices per cwt. of Canadian Live Stock at Principal Markets, 1927.

Classification.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
	$	$	$	$	$	$	$	$	$	$	$	$
Montreal—												
Steers, 1,000–1,200 lb., good	7·06	7·38	7·76	8·55	8·68	8·67	8·38	7·96	7·68	7·90	7·94	9·54
Heifers, good	6·26	6·88	7·27	8·00	8·51	7·76	7·76	–	7·10	7·04	7·04	7·85
Calves, veal, good	11·13	11·41	9·78	7·25	8·63	9·54	10·31	11·23	11·99	12·27	12·41	13·03
Hogs (weighed off cars), select	12·58	–	–	12·20	11·01	10·35	10·09	11·00	11·02	10·52	9·34	8·99
Hogs (weighed off cars), lights	11·49	11·76	11·73	11·29	10·34	9·72	10·09	8·50	10·35	9·28	8·42	8·50
Lambs, good	10·45	10·40	10·89	10·75	–	15·33	12·66	12·03	10·80	11·15	11·04	11·50
Sheep, good	5·71	6·07	6·50	7·37	7·29	6·00	5·21	5·20	5·72	5·58	5·35	5·50
Toronto—												
Steers, 1,000–1,200 lb., good	6·92	7·08	7·65	8·35	8·88	8·97	8·49	8·21	8·08	7·96	8·61	10·26
Heifers, good	6·94	6·97	7·39	8·15	8·63	8·90	8·38	7·88	7·69	7·65	8·05	9·26
Calves, veal, good	12·82	13·13	12·30	11·20	10·58	10·61	11·22	12·85	13·52	13·77	13·46	14·24
Hogs (weighed off cars), select	12·75	12·92	12·27	11·80	10·69	10·06	10·34	11·47	11·58	10·83	9·50	9·11
Hogs (weighed off cars), lights	10·55	10·78	10·10	9·77	9·07	8·52	8·85	9·75	9·88	9·34	8·05	7·64
Lambs, good	12·41	12·55	13·50	14·01	15·33	16·74	14·75	13·40	11·83	11·43	11·49	11·59
Sheep, good	6·84	6·83	7·31	8·56	7·18	6·13	5·76	6·62	6·46	6·20	5·96	5·65
Winnipeg—												
Steers, 1,000–1,200 lb., good	6·22	6·09	6·74	7·71	9·01	8·60	8·11	6·81	6·83	8·60	8·02	8·77
Heifers, good	5·86	6·00	6·52	7·25	8·55	8·11	7·77	6·35	6·38	6·29	6·77	7·45
Calves, veal, good	8·94	9·13	8·88	9·26	9·90	8·34	8·82	8·72	8·77	9·67	8·93	10·19
Hogs (fed and watered), select	11·47	11·79	11·21	10·77	9·92	9·21	9·49	10·94	12·15	10·00	8·45	8·20
Hogs (fed and watered), lights	10·45	10·80	10·35	10·11	9·51	8·91	8·98	10·43	10·82	8·83	7·75	7·51
Lambs, good	10·63	11·59	11·49	11·92	11·33	14·20	12·42	11·26	10·64	10·38	10·59	12·79
Sheep, good	6·89	7·00	7·00	7·11	7·43	7·52	5·55	6·57	6·26	6·48	6·76	6·75
Calgary—												
Steers, 1,000–1,200 lb., good	5·90	6·00	6·62	8·42	9·35	7·48	6·38	6·17	6·25	6·50	7·61	8·00
Heifers, good	5·02	5·33	5·82	7·51	8·34	7·76	6·25	5·44	5·45	5·45	6·10	6·69
Calves, veal, good	6·63	7·38	8·72	9·00	9·11	8·34	8·57	7·72	8·25	7·79	7·91	7·75
Hogs (weighed off cars), select	12·53	12·26	12·05	11·50	10·19	9·22	10·11	11·04	12·89	10·87	9·03	8·73
Hogs (weighed off cars), lights	11·43	11·21	10·94	10·52	9·63	8·72	9·68	10·58	12·56	10·00	8·59	8·14
Lambs, good	9·89	10·49	10·75	11·43	11·50	11·50	11·85	11·43	11·39	11·25	10·76	10·68
Sheep, good	8·00	8·00	–	–	–	–	8·86	8·50	8·50	8·50	8·50	8·50
Edmonton—												
Steers, 1,000–1,200 lb., good	6·02	6·25	6·84	8·30	9·24	8·40	7·32	6·19	6·50	6·64	7·33	8·56
Heifers, good	5·31	5·30	6·21	7·52	8·75	7·41	6·22	5·25	5·29	5·64	6·18	6·95
Calves, veal, good	8·57	9·00	9·16	9·66	9·51	7·59	7·79	7·91	8·86	8·69	8·82	9·34
Hogs (fed and watered), select	12·36	12·15	12·01	11·18	9·82	9·17	10·10	11·35	12·91	10·39	8·96	8·69
Hogs (fed and watered), lights	11·26	11·05	10·84	10·15	9·30	8·34	9·08	10·56	11·94	8·83	7·46	7·21
Lambs, good	10·58	11·25	11·25	11·47	–	13·13	13·15	9·92	10·49	10·55	11·50	11·95
Sheep, good	6·25	6·25	6·75	7·25	7·75	6·75	7·50	5·77	6·40	6·48	6·78	7·47

Index Numbers of Agricultural Prices.—Records of the average prices received by farmers for agricultural produce have been collected annually since 1909 through the crop correspondents of the Census and Statistics Office and the Dominion Bureau of Statistics. From these records, annual index numbers have been calculated for each crop and for the field crops as a whole. In calculating the index numbers in the present instance, in order to bring about uniformity with index numbers relating to wholesale and retail commodity prices and prices of

securities and services published by the Bureau, the base period used is 1913. Index numbers have been calculated of the yields of the various crops from year to year. From these data, index numbers of the value of all field crops have been obtained, weighted according to the quantity produced in each case. These calculations have been made with prices for the year 1913 as a base.

45.—Index Numbers of Producers' Prices of Agricultural Commodities, 1914-1928.

NOTE.—Average Prices, 1913 = 100.

For the formulæ used in the calculation see Monthly Bulletin of Agricultural Statistics, March, 1928, p. 94.

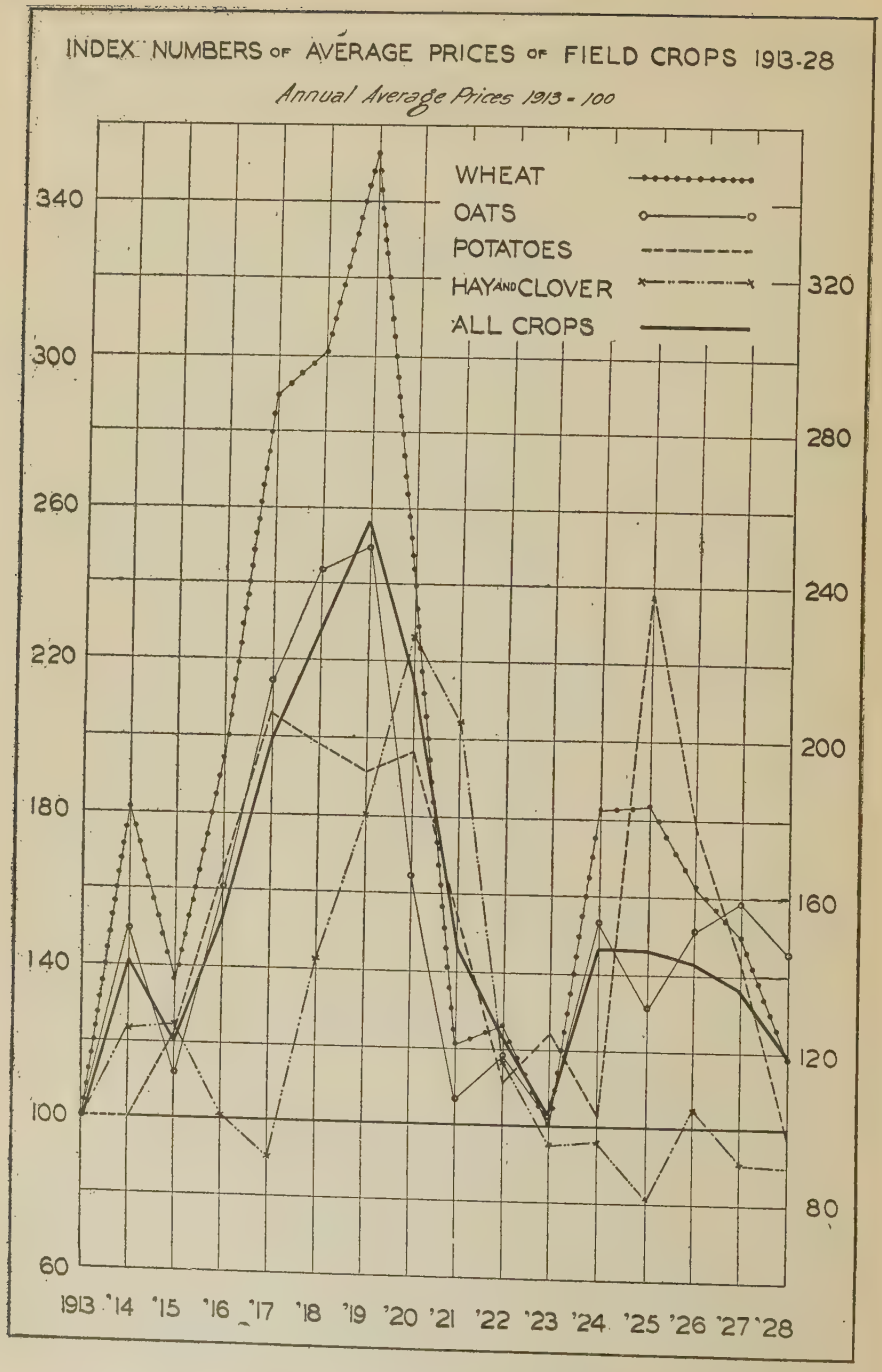
Field Crops.	Average prices 1913.[1]	1914.	1915.	1916.	1917.	1918.	1919.	1920.
Canada—	$ cts.							
Wheat	0 67	182·1	135·8	195·5	289·6	301·5	353·7	241·7
Oats	0 32	150·0	112·5	159·4	215·6	243·8	250·0	165·6
Barley	0 42	142·9	123·8	195·2	247·1	238·1	292·9	197·6
Rye	0 66	125·8	116·7	168·2	245·5	225·8	212·1	201·5
Peas	1 11	131·5	148·6	200·0	318·9	269·4	257·7	118·0
Beans	1 88	122·9	162·2	287·2	396·3	287·8	238·3	206·4
Buckwheat	0 64	112·5	117·2	167·2	222·6	246·9	234·4	200·0
Mixed grains	0 55	120·0	103·6	160·0	210·9	207·3	247·3	163·6
Flaxseed	0 97	106·2	155·7	210·3	273·2	322·7	425·8	200·0
Corn for husking	0 64	110·9	110·9	167·2	287·5	273·4	209·4	181·3
Potatoes	0 82	100·0	122·0	164·6	206·1	198·8	192·7	197·6
Turnips, etc.	0 56	96·4	85·7	139·3	164·3	151·8	175·0	148·2
Hay and clover	11 48	124·0	125·2	101·0	90·0	141·6	180·5	227·4
Alfalfa	11 85	119·6	107·0	90·2	97·9	150·5	184·4	200·8
Fodder corn	4 78	102·7	102·7	102·9	107·5	108·7	144·8	162·1
Sugar beets	6 12	97·9	89·9	101·4	110·3	167·5	177·5	209·2
All Field Crops	–	**141·2**	**120·2**	**153·3**	**199·2**	**227·6**	**256·6**	**214·4**

Field Crops.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Canada—								
Wheat	120·9	126·9	100·0	182·1	183·6	162·7	149·3	119·4
Oats	106·3	118·8	103·1	153·1	131·3	150·0	159·4	146·9
Barley	111·9	109·5	100·0	166·6	126·2	123·8	157·1	133·3
Rye	109·1	87·9	74·2	150·0	116·7	116·7	122·7	119·7
Peas	176·6	165·8	155·0	157·7	148·6	157·7	158·6	166·6
Beans	154·3	151·6	141·5	147·3	137·2	140·4	123·4	189·9
Buckwheat	139·1	131·3	131·3	139·1	132·8	135·9	139·1	145·3
Mixed grains	112·7	109·1	107·2	129·1	118·2	120·0	130·9	129·1
Flaxseed	148·5	177·3	182·5	200·0	190·7	167·0	159·8	163·9
Corn for husking	129·7	129·7	143·8	185·9	146·9	156·3	154·7	175·0
Potatoes	156·1	109·8	124·4	103·7	239·0	179·3	143·4	97·6
Turnips, etc.	119·8	96·4	105·4	78·6	100·0	107·1	82·1	83·9
Hay and clover	205·2	117·2	95·6	96·4	90·2	105·7	90·7	90·3
Alfalfa	168·4	107·8	97·7	98·7	107·3	112·2	101·5	97·1
Fodder corn	147·5	104·0	96·7	107·1	84·3	102·1	93·5	93·1
Sugar beets	106·2	128·8	105·9	110·9	99·3	105·4	127·3	118·5
All Field Crops	**145·2**	**124·4**	**103·9**	**146·9**	**146·6**	**143·6**	**136·3**	**119·6**

[1] Prices quoted are per bushel, except for potatoes and turnips, etc. which are per cwt. and the last four items, which are per ton. For details of index numbers by provinces, see Monthly Bulletin of Agricultural Statistics, February 1929, pp. 50-57.

Table 45 gives the index numbers for each of the years 1914 to 1928, while the accompanying diagram (page 268) shows the trend for 1913 to 1927.

For the year 1927, the index numbers generally represent a lower level than that established in 1925 and 1926. Pronounced drops in the prices of potatoes, turnips, etc., beans, hay and clover, alfalfa and wheat combine to bring down the general index number of all field crops from 143·6 to 136·3. Among the cereal crops, barley showed the greatest gain, the index number rising from 123·8 to 157·1. Oats and rye also rose slightly as well as mixed grains, while wheat the most important crop dropped over thirteen points. The weighted index number of producers' prices for all field crops shows a slight variation for 1924, 1925 and 1926, but in 1927 dropped to 136·3, some seven points below the previous year.


INDEX NUMBERS OF AVERAGE PRICES OF FIELD CROPS 1913-28
Annual Average Prices 1913 - 100
WHEAT
OATS
POTATOES
HAY AND CLOVER
ALL CROPS
340
300
260
220
180
140
100
60
320
280
240
200
160
120
80
1913 '14 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28

Subsection 10.—Agricultural Statistics of the Census.

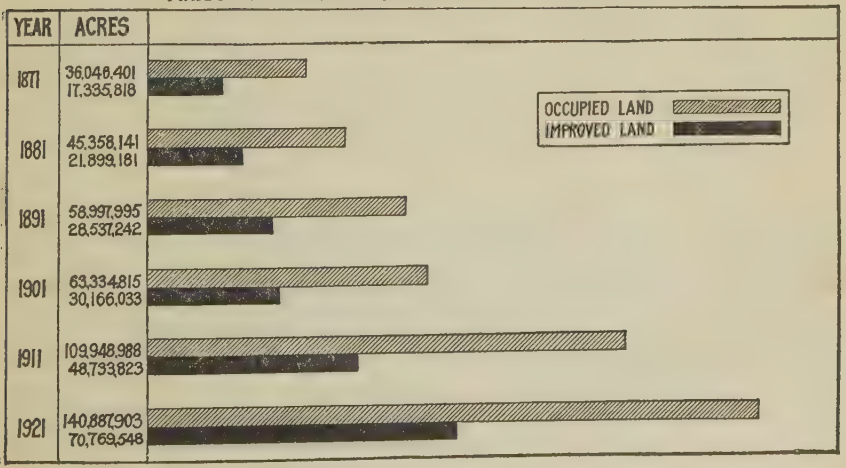
Agricultural Statistics of the Census of 1921.—For the census of 1921, a farm was defined as a tract of land of one acre or over which produced in the year 1920 crops of any kind to the value of $50 or more. In previous censuses the minimum area was not clearly defined, with the consequence that some plots of less than one acre were included. For the whole of Canada these numbered 33,615 in 1901 and 30,141 in 1911. These have been deducted from the total numbers of farms in their respective years wherever the latter are given in the comparative tables below, but as total acreage and production are effected only to a very slight extent by such farms, no deductions have been made in these respects. The figures relating to number of farms, farm areas, size and tenure of farms, are for June 1, 1921, the date of the census.

In the census of 1921 the areas devoted to agriculture on Indian reserves in Manitoba, Saskatchewan and Alberta were not counted as farms, although the improved land on the reserves was included in the total farm acreage. This improved land on reserves was not classified by kind of tenure; thus it is necessary to subtract it from the total farm acreage before calculating percentages in which the kind of tenure is involved.

In Table **46** are given comparative statistics of farm holdings for 1901, 1911 and 1921, while figures of farm holdings for 1911 and 1921 are given by tenure in Table **47.** A specially notable fact is the increase in the size of the average farm from 124 acres in 1901 to 198 acres in 1921—an increase of nearly 60 p.c. due, in the main, to the increasing use of machinery. It is also obvious from Table **47,** that rented farm lands are gradually becoming a larger percentage of the total. Statistics of farm holdings, farm areas and condition of farm lands in 1921 were given by provinces in a table on pp. 270-1 of the 1925 Year Book. Detailed statistics of acreages, capital value, value of production in 1920, etc., will be found in Vol. V of the Census of 1921, obtainable from the Dominion Bureau of Statistics.

The increase in the area of occupied and of improved land in Canada since 1871 is shown in the following diagram.

AREA OF OCCUPIED AND IMPROVED LANDS 1871-1921



46.—Population, Farm Holdings and Areas, 1901, 1911 and 1921.

Items.		1921, June 1.	1911, June 1.	1901, Mar. 31.
Population of Canada[1]	No.	8,775,853	7,191,624	5,323,967
Urban	"	4,350,816	3,269,082	2,005,080
Rural	"	4,425,037	3,922,542	3,318,887
Number of occupied farms	"	711,090	682,329[3]	511,073[2]
Land area of provinces[7]	acres	1,401,316,388	1,401,316,388	1,401,316,388
Area of occupied farms	"	140,887,903	108,968,715[4]	63,422,338
Improved	"	70,769,548	48,733,823	30,166,033
Unimproved	"	70,118,355	60,234,892[4]	33,256,305
In field crops	"	49,680,666	35,261,338	19,763,740
In orchard	"	297,053	403,596	356,106
In vineyard	"	7,090	9,836	5,600
In small fruits	"	17,741	17,495	[5]
Number of rural inhabitants, per farm[1]	No.	6·18[6]	5·70[6]	6·49[6]
Average area of farm	acres	197·97[6]	159·60[6]	124·10
Average area of improved land in farm	"	99·36[6]	71·33[6]	59·02
Per cent of total land area in occupied farms[1]	p.c.	10·05	7·78	4·53
Per cent of farm land improved	"	50·23	44·72	47·56

[1] Exclusive of Yukon and Northwest Territories. The total population of Canada in 1921 was 8,788,483, while the total land area is placed at 3,654,200 square miles.
[2] After deduction of 33,615 farms under 1 acre (the minimum area taken in 1921).
[3] Exclusive of 30,141 farms under 1 acre (see note 2) and 2,176 farms located on Indian reserves in the Prairie Provinces.
[4] After deduction of unimproved area of 980,273 acres on Indian reserves in Prairie Provinces included in diagram on p. 269.
[5] Not separately given in 1901.
[6] Exclusive of Indian reserves in Prairie Provinces.
[7] See note to Table 48.

47.—Farm Holdings and Areas, by Tenure, 1911 and 1921.

Items.	1921.	1911.	Increase in 1921.	
Number of Farms.	No.	No.	No.	p.c.
All occupied farms	711,090	682,329[1]	28,761	4·22
Occupied by owner or manager	615,180	603,971[1]	11,209	1·86
Occupied by tenant	55,948	54,013[1]	1,935	3·58
Occupied by part owner, part tenant	39,962	24,345[1]	15,617	64·15
Area.	acres.	acres.	acres.	p.c.
Total area occupied	140,887,903[2]	108,968,715[2]	31,919,188	29·29
Owned or managed by occupier	120,175,428	97,819,420	22,356,008	22·85
Rented by occupier	20,598,347	11,082,900	9,515,447	85·86

[1] After deduction of farms under 1 acre and those situated on Indian reserves in Prairie Provinces.
[2] Total area includes improved acreage of Indian reserves in Prairie Provinces which has not been classified by tenure.

Area suitable for Agriculture.—Various estimates of the areas of agricultural land in Canada have been made. Such estimates must necessarily be of a very tentative character, especially in view of the fact that every advance in the art of evolving more frost-resistant and drought-resistant species of cultivated grains, etc., increases the area of potential agricultural land, while the same result follows from the introduction of improved methods of tilling the soil, as in dry-farming. Of the grand total land area of Canada, now estimated at 2,270,227,200 acres, 1,332,855,040 acres are within the nine provinces, and Table 48, taken from p. xi of the Introduction to Vol. V of the Census of 1921, is presented as a fair estimate of the possible farm land in these provinces under present conditions.

48.—Total Land Area of the Provinces of Canada, with Estimated Possible Farm Land and Farm Land Occupied, 1921.

Provinces.	Total land area.	Estimated possible farm land.		Occupied as farm land 1921.		Per cent of possible farm land occupied.		
						1921.	1911.	1901.
	acres.	acres.	p.c. of total.	acres.	p.c. of total.	p.c.	p.c.	p.c.
Prince Edward Island.	1,397,990	1,258,190	90·0	1,216,483	87·0	96·7	95·6	94·9
Nova Scotia.....	13,483,520	8,092,000	60·0	4,723,550	35·0	58·4	65·0	62·8
New Brunswick.....	17,863,040	10,718,000	60·0	4,269,560	23·9	39·8	42·3	41·5
Quebec.....	442,153,600[1]	43,745,000	9·9	17,257,012	3·9	39·4	35·7	33·0
Ontario.....	234,163,200	56,450,000	24·1	22,628,901	9·7	40·1	39·3	37·8
Manitoba.....	148,432,698	24,700,000	16·6	14,615,844	9·8	59·2	49·3	35·8
Saskatchewan.....	155,764,100[1]	93,458,000	60·0	44,022,907	28·3	47·1	30·1	4·1
Alberta.....	161,872,000[1]	97,123,000	60·0	29,293,053	18·1	30·2	17·9	2·8
British Columbia.....	226,186,240	22,618,000	10·0	2,860,593	1·3	12·6	11·2	6·6
Total.....	**1,401,316,388[1]**	**358,162,190**	**25·6**	**140,887,903**	**10·1**	**39·3**	**30·4**	**17·7**

[1] The land area of Quebec was reduced to 373,692,800 acres, and that of the nine provinces to 1,332,855,040 acres, by the Labrador Boundary Award of Mar. 1, 1927. Later surveys have reduced the land area of Saskatchewan to 153,728,000 acres, of Alberta to 160,592,000 acres, and of the nine provinces to 1,329,538,940 acres.

Agricultural Statistics of the Census of 1926 in the Prairie Provinces.—A census of agriculture was taken in the Prairie Provinces as of June 1, 1926, in connection with the census of population of the same date. Since the quinquennium from 1921 to 1926 was for the most part a period of strain and stress for the agriculturists of Western Canada, the progress recorded was not as remarkable as in previous periods with regard to acreages, while the values of agricultural lands in 1926 and of the crops raised on them in 1925 were substantially lower, as the result of the reaction from the greatly inflated values of 1920. Detailed statistics will be found in the reports issued separately for Manitoba, Saskatchewan and Alberta, obtainable from the Dominion Bureau of Statistics.

Among the more important developments in the agriculture of the West between 1921 and 1926 were the distinct increase in the areas of the occupied farms, of the improved lands on those farms and of the areas of field crops. While the aggregate number of occupied farms in the Prairie Provinces declined in the quinquennial period from 255,657 to 248,162, the areas of the farms, of the improved land, and of the field crops showed a substantial increase due largely to improved machinery of production. Although the total acreage of the occupied farms in the Prairie Provinces increased only from 87,931,804 acres in 1921 to 88,929,994 acres in 1926, or by about 1,000,000 acres, the acreage of improved land rose from 44,863,266 acres in 1921 to 49,264,625 acres in 1926, or by about 4,400,000 acres, and the acreage under field crops from 32,203,306 acres in 1921 to 34,987,081 acres in 1926, or by nearly 2,800,000 acres.

Again, while the average area of the farms in the Prairie Provinces increased from 335·4 acres in 1916 and 343·9 acres in 1921 to 358·4 acres in 1926, the average acreage of their improved land increased more rapidly from 157·1 acres in 1916 to 175·5 acres in 1921 and 198·5 acres in 1926. Similarly, the average acreage under field crops rose from 112·5 acres in 1916 to 126·0 acres in 1921 and 141·0 acres in 1926. Details are presented by provinces in Table 49.

49.—Occupied Farms in the Prairie Provinces, Areas and Acreages of Improved Land and of Land under Crop, Censuses of 1916, 1921 and 1926.

Provinces and Years.	No. farms.	Area farms.	Average area of farm.	Improved land.	Average area improved land per farm.	Land in field crops.	Average area in field crops per farm.
	No.	acres.	acres.	acres.	acres.	acres.	acres.
Manitoba.....1916	46,580	13,436,670	288·5	7,187,737	154·3	5,116,661	109·9
1921	53,252	14,615,844	274·2	8,057,823	151·3	5,857,635	110·0
1926	53,251	14,411,597	270·6	8,346,021	156·7	6,261,417	136·4
Saskatchewan.....1916	104,006	36,800,698	353·8	19,632,206	188·8	13,973,382	134·4
1921	119,451	44,022,907	368·1	25,037,401	209·6	17,822,481	149·2
1926	117,781	45,945,410	389·7	27,714,490	235·3	19,558,964	166·1
Alberta.....1916	67,977	23,062,767	339·3	7,510,303	110·5	5,505,872	81·0
1921	82,954	29,293,053	352·5	11,768,042	141·9	8,523,190	102·7
1926	77,130	28,572,987	370·5	13,204,114	171·2	9,166,700	118·8
All Prairie Provinces.....1916	218,563	73,300,135	335·4	34,330,246	157·1	24,595,915	112·5
1921	255,657	87,931,804	343·9	44,863,266	175·5	32,203,306	126·0
1926	248,162	88,929,994	358·4	49,264,625	198·5	34,987,081	141·0

Value of Farm Property in the Prairie Provinces.—The total value of the farm property in the three provinces declined from $3,255,894,259 in 1921 to $2,609,416,646 in 1926, each item in the total showing a decrease. As compared with 1916, however, when average prices and values were more nearly comparable with those of 1926, there was a substantial increase in land values, and a great increase in the value of buildings and of implements and machinery, but a decline in the value of live stock. Details are given in Table **50.**

50.—Value of Farm Property in the Prairie Provinces, by Items and Provinces, Censuses of 1916, 1921 and 1926.

Provinces and Years.	Land.	Buildings.	Implements and Machinery.	Live stock.	Total.
	$	$	$	$	$
Manitoba.....1916	296,223,054	62,033,267	35,909,952	77,351,048	471,517,321
1921	380,855,811	112,955,195	67,847,699	75,729,340	637,388,045
1926	266,312,768	95,949,818	57,963,670	55,485,480	475,711,736
Saskatchewan.....1916	719,967,434	101,419,322	88,935,911	192,536,065	1,102,858,732
1921	1,060,510,192	216,398,082	176,675,721	196,485,201	1,650,069,196
1926	818,721,366	214,965,746	169,530,167	140,140,547	1,343,357,826
Alberta.....1916	366,216,578	55,094,424	40,979,062	137,426,755	599,716,819
1921	610,526,401	121,765,499	98,814,513	137,330,605	968,437,018
1926	490,313,369	117,247,284	87,813,452	94,972,979	790,347,084
Prairie Provinces.....1916	1,382,407,066	218,547,013	165,824,925	407,313,868	2,174,092,872
1921	2,051,892,404	451,118,776	343,337,933	409,545,146	3,255,894,259
1926	1,575,347,503	428,162,848	315,307,289	290,599,006	2,609,416,646

Value of Farm Production.—According to Table **51,** the aggregate value of agricultural production in the Prairie Provinces was $739,133,455 in 1925, as compared with $37,832,154 in 1900, an increase of nearly twenty-fold in the first quarter of the present century. As the corresponding figure in 1920 was $625,975,232, there was a substantial increase of $113,158,223 or about 18 p.c. in the last quinquennium.

51.—Value of Farm Products in the Prairie Provinces, by Provinces and Principal Items, 1900, 1910, 1915, 1920 and 1925.

Items.	1900.	1910.	1915.	1920.	1925.
	$	$	$	$	$
Manitoba—					
Field crops	16,669,321	45,509,520	96,890,935	104,488,960	93,191,235
Vegetables	–	1,428,402	–	1,696,927	1,900,865
Orchard fruits	163,958	7,146	1,063,152	5,239	–
Grapes and small fruits	–	14,690	–	6,210	–
Forest products[2]	[1]	402,144	1,159,238	1,813,687	1,710,902
Stock sold alive[2]	2,869,105	10,933,747	9,320,917	9,234,110	7,330,346
Stock slaughtered[2]	1,325,289	1,875,890	2,971,478	4,502,714	3,509,618
Animal products	3,415,885	8,448,913	16,220,738	15,011,476	14,141,339
Saskatchewan—					
Field crops	4,608,172	79,954,903	273,353,724	249,312,552	368,274,521
Vegetables	–	1,047,082	–	2,455,849	3,125,002
Orchard fruits	48,474	327	1,942,733	1,033	–
Grapes and small fruits	–	3,828	–	6,276	–
Forest products[2]	[1]	149,051	1,165,818	1,851,935	1,771,114
Stock sold alive[2]	1,626,446	13,191,262	15,931,356	14,781,814	12,933,975
Stock slaughtered[2]	375,059	2,203,391	7,151,649	8,752,989	7,787,048
Animal products	927,436	9,555,096	27,646,573	24,694,243	21,128,491
Alberta—					
Field crops	2,618,420	17,015,329	98,575,528	142,268,290	157,227,282
Vegetables	–	1,129,922	–	1,859,168	2,133,997
Orchard fruits	32,079	401	1,142,081	1,090	–
Grapes and small fruits	–	6,469	–	6,089	–
Forest products[2]	[1]	418,684	99,722	1,508,378	1,601,729
Stock sold alive[2]	2,127,386	19,031,121	19,292,373	17,094,061	19,634,108
Stock slaughtered[2]	279,513	1,428,548	3,639,505	4,761,902	4,278,353
Animal products	745,611	9,512,774	19,251,311	19,860,240	17,453,530
Three Prairie Provinces—					
Field crops	23,895,913	142,479,752	468,820,187	496,069,802	618,693,038
Vegetables	–	3,605,406	–	6,011,944	7,159,864
Orchard fruits	244,511	7,874	4,147,966	7,362	[1]
Grapes and small fruits	–	24,987	–	18,575	[1]
Forest products[2]	[1]	969,879	2,424,778	5,174,000	5,083,745
Stock sold alive[2]	6,622,937	43,156,130	44,544,646	41,109,985	39,898,429
Stock slaughtered[2]	1,979,861	5,507,829	13,762,632	18,017,605	15,575,019
Animal products	5,088,932	27,516,783	63,118,622	59,565,959	52,723,360

[1] Not given.
[2] In each census the figures listed for these items apply to farms only.

Subsection 11.—Miscellaneous Agricultural Statistics.

Agricultural Irrigation.—The control of the surface waters in the provinces of Alberta, Saskatchewan, Northern Manitoba and part of the Northwest Territories is vested in the Crown in the right of the Dominion of Canada by the Irrigation Act (R.S.C. 1927, c. 104), administered by the Dominion Water Power and Reclamation Service of the Department of the Interior. All matters that affect the control of water supply generally, as well as the inspection and authorization of works for the use of water for domestic, municipal, industrial and irrigation purposes and the granting of licenses for such purposes, are dealt with thereunder. The Commissioner of Irrigation at Calgary, Alberta, is responsible for all field administration. The Irrigation Districts Act of Alberta (R.S.A. 1922, c. 114) and amending statutes provide for the formation of irrigation districts under the Dominion Act and authorize the raising of loans under by-laws adopted by the voters of the district. In the province of Saskatchewan the Irrigation Districts Act, 1920 (c. 84), provides for the formation of irrigation districts in a manner similar to Alberta. In British Columbia the granting of water rights comes under provincial jurisdiction and is

administered by the Controller of Water Rights, Department of Lands, Victoria, B.C.

The construction of large irrigation projects in the Prairie Provinces has been confined, up to the present, to Alberta. Table **52**, furnished by the Dominion Water Power and Reclamation Service, gives statistics of the larger irrigation projects in Alberta for the year 1927.

52.—Major Irrigation Projects in Southern Alberta, 1927.

Projects.	Source of supply.	Irrigable area.	Length of canals.	Area irrigated in 1927.
		acres.	miles.	acres.
C.P.R. Western Section	Bow river	218,980	1,472	1,273
C.P.R. Eastern Section	Bow river	400,000	2,500	7,921
C.P.R. Lethbridge Section	St. Mary river	108,000	190	21,600
Canada Land and Irrigation Co., Ltd.	Bow river	130,000	402	16,657
Taber Irrigation District	St. Mary river	16,940	76	576
Lethbridge Northern Irrigation District	Oldman river	103,240	573	10,012
United Irrigation District	Belly river	34,400	175	41
New West Irrigation District	Bow river	4,500	21	151
Magrath Irrigation District	St. Mary river	6,970	90	1,235
Raymond Irrigation District	St. Mary river	15,130	15	6,800
Totals		**1,038,160**	**5,514**	**66,266**

In addition to the irrigated tracts enumerated in Table **52** there are at present in Alberta and Saskatchewan some 680 privately owned projects, making possible the irrigation of a further 105,000 acres.

Irrigation Projects of the Canadian Pacific Railway Co.—The Canadian Pacific Railway Company has constructed and is operating in the province of Alberta three large projects known as the Eastern, Western and Lethbridge sections, the latter being the oldest irrigation project in Alberta. The total irrigable area which can be served by these projects is 726,980 acres. The crop produced during 1927 from 354,141 acres within their boundaries amounted to $9,243,740, or at the average rate of $26.10 per acre. By agreement with the C.P.R. the Taber, Magrath and Raymond Irrigation Districts procure their water supply from the main canal of the Lethbridge section, a further 39,040 acres being served by the canals of these districts. The Lethbridge Northern Irrigation District, comprising 103,240 acres of irrigable land, reported an area of 78,420 acres in crop in 1927 producing at the average rate of $34.18. In the Canada Land and Irrigation Company's tract an acreage of 16,550 produced crops valued at $493,940 or at the rate of $29.66 per acre.

Production on Irrigated Lands.—Table **53** gives statistics of crops grown during 1927 on 476,429 acres within the projects shown in Table **52**.

53.—Statistics of Crops Grown on Major Irrigation Projects in Southern Alberta, 1927.

Crops.	Acreage.	Average yield per acre.	Total yield.	Average unit values at harvest.	Total value.	Value per acre.
		bush.	bush.	$	$	$
Wheat	341,465	25·2	8,603,595	1·15	9,894,134	28·97
Oats	47,646	43·1	2,051,944	0·52	1,067,011	22·39
Barley	15,516	33·4	517,900	0·68	352,172	22·70
Rye	448	20·5	9,170	1·00	9,170	20·47
Flax	2,989	13·6	40,532	1·60	64,851	21·70
		tons.	tons.			
Alfalfa	31,897	2·8	70,454	13·00	915,902	28·71
Sweet clover	1,101	0·5	550	13·00	7,156	6·50
Green oats	8,075	1·2	9,688	12·00	116,256	14·40
Other hay	8,183	1·1	9,233	10·00	92,330	11·00
Green feed	7,188	1·4	9,757	12·00	116,884	16·26
Timothy	7,762	1·4	10,907	13·00	141,791	18·27
Sugar beets	2,097	6·4	13,517	7·00	94,619	45·12
Potatoes	2,062	5·4	11,086	15·00	166,290	80·64
Total	**476,429**	–	–	–	**13,038,566**	**27·37**

Subsection 12.—International Agricultural Statistics.

World's Production of Cereals and Potatoes.—Table **54**, constructed from data published by the International Institute of Agriculture, shows the area and yield of wheat, oats, barley, rye, corn and potatoes for the years 1926 and 1927 in countries of the Northern Hemisphere, and for the years 1926-27 and 1927-28 in countries of the Southern Hemisphere (Argentina, Brazil, Chile, Uruguay, Madagascar, Union of South Africa, Australia and New Zealand). The annual average areas and yields are also given for the five-year period 1921-25 (1921-22 to 1925-26), and the areas and yields of 1927 (1927-28) are compared in percentages with those of the five-year period.

Wheat.—For 50 countries the production of wheat in 1927 was 4,245,567,000 bushels from 306,993,000 acres, as compared with 4,170,609,000 bushels from 298,065,000 acres in 1926 and 3,959,883,000 from 279,650,000 acres, the five-year average 1921-25 (1921-22 to 1925-26). As compared with 1926, the total area under wheat in the countries named shows in 1927 an increase of 8,928,000 acres or 3·0 p.c. and the total production an increase of 74,958,000 bushels or 1·8 p.c. As compared with the average, the acreage is 9·8 p.c. and the yield 7·2 p.c. more.

Oats.—In 41 countries the total production in 1927 is 4,211,367,000 bushels from 148,836,000 acres, as compared with 4,375,912,000 bushels from 143,508,000 acres in 1926 and with 4,103,560,000 bushels from 138,873,000 acres, the five-year average. The area is 3·7 p.c. more and the yield 3·8 p.c. less than in 1926. As compared with the five-year average, the area is 7·2 p.c. and the yield 2·6 p.c. more.

Barley.—In 48 countries the total yield in 1927 is 1,615,886,000 bushels from 78,568,000 acres, as compared with 1,583,142,000 bushels from 79,166,000 acres in 1926 and with 1,551,297,000 bushels from 74,587,000 acres, the five-year average. The area in 1927 is 0·8 p.c. less and the yield 2·1 p.c. more than in 1926, whilst as compared with the average the area is 5·3 p.c. and the yield 4·2 p.c. more.

Rye.—In 30 countries the production in 1927 is 1,812,432,000 bushels from 114,630,000 acres, as compared with 1,704,990,000 bushels from 114,573,000 acres in 1926 and with 1,747,672,000 bushels from 115,548,000 acres, the five-year average.

The area for 1927 is practically identical with that of 1926, while the production is 6·3 p.c. more. As compared with the average the area is 0·8 p.c. less and the yield 3·7 p.c. more.

Corn.—In 23 countries the production in 1927 is 3,866,376,000 bushels from 157,502,000 acres, as compared with 3,970,422,000 bushels from 157,097,000 acres in 1926 and with 3,902,097,000 bushels from 156,816,000 acres, the five-year average. The area for 1927 is 0·3 p.c. more and the yield 2·6 p.c. less than in 1926. As compared with the average the area is 0·4 p.c. more and the yield 0·9 p.c. less.

Potatoes.—In 38 countries the total yield in 1927 is shown to be 4,375,544,000 cwt. from 44,169,000 acres, as compared with 3,681,879,000 cwt. from 42,482,000 acres in 1926 and with 3,702,407,000 cwt. from 41,857,000 acres, the five-year average. The acreage is 4·0 p.c. and the yield 18·8 p.c. more than in 1926. As compared with the average, the acreage is 5·5 p.c. and the yield 18·2 p.c. more.

Average Yields per Acre.—Table **55** shows for the same countries as Table **54** the average yields per acre of cereals and of potatoes for the year 1927, as compared with the average for the five years 1921-25 (1921-22 to 1925-26). For wheat (50 countries) the yield per acre is 13·8 bushels as against 14·2 bushels, the five-year average; oats (41 countries) 28·3 bushels as against 29·5 bushels; barley (48 countries) 20·6 bushels and 20·8 bushels; rye (30 countries) 15·8 bushels and 15·1 bushels; corn, 24·6 bushels and 24·5 bushels; potatoes, 99·1 cwt. and 88·5 cwt. The highest average yields in bushels per acre in 1927 are:—wheat, Irish Free State 41·8; oats, Irish Free State 68·2; barley, Belgium 52·8; rye, Belgium 38·1; corn, Switzerland 51·3; potatoes, Belgium 175·4 cwt. In these comparisons, the size of the country should be considered, as the smaller European countries are more intensively cultivated and the average yields per acre are larger in consequence.

54.—Acreage and Production of Cereals and Potatoes in Countries of the World, 1926 and 1927, with five-year average for 1921-25.

Countries.	1926.	1927.	Average 1921-25.	1927 as p.c. of average.	1926.	1927.	Average 1921-25.	1927 as p.c. of average.
Wheat—	000	000	000		000	000	000	
Northern Hemisphere. Europe.	acres.	acres.	acres.	p.c.	bush.	bush.	bush.	p.c.
Austria	500	505	475	106·3	9,438	11,960	8,868	134·9
Belgium	354	391	339	115·4	12,801	16,276	13,193	123·4
Bulgaria	2,617	2,658	2,391	111·2	36,544	47,346	31,399	150·8
Czechoslovakia	1,541	1,586	1,522	104·2	34,130	40,384	36,015	112·1
Denmark	252	252	202	124·7	8,767	9,553	8,973	106·5
England and Wales	1,592	1,636	1,745	93·7	48,685	53,125	58,149	91·4
Estonia	59	67	47	141·2	878	1,079	667	161·8
Finland	39	44	36	122·2	924	1,064	739	144·0
France	12,972	13,065	13,508	96·7	231,766	276,126	290,772	95·0
Germany	3,957	4,320	3,614	119·5	95,429	120,521	98,718	122·1
Greece	1,153	1,140	1,056	108·0	11,171	12,970	9,411	137·8
Hungary	3,706	4,049	3,345	121·0	74,908	76,933	59,678	128·9
Irish Free State	29	34	33	105·9	1,155	1,421	1,086	130·8
Italy	12,146	12,296	11,556	106·4	220,642	195,808	198,060	98·9
Latvia	122	145	89	162·1	1,860	2,636	1,426	184·9
Lithuania	303	297	222	133·4	4,180	5,273	3,744	140·8
Luxemburg	32	36	23	152·4	622	701	392	178·8
Malta	9	9	10	98·1	310	294	271	108·6
Netherlands	132	153	148	103·4	5,487	6,156	6,195	82·3
Northern Ireland	6	6	6	105·3	226	212	186	114·2
Norway	22	25	27	91·9	586	605	637	95·0
Poland	2,719	2,814	2,511	112·1	47,080	54,230	44,060	123·1
Portugal	1,063	1,082	1,064	101·7	8,560	11,447	11,103	103·1
Rumania	8,223	7,663	7,068	108·4	110,882	96,734	89,570	108·0
Russia (Soviet Union)	70,873	75,941	59,770	127·1	819,565	745,885	729,886	102·2
Scotland	54	67	57	115·9	2,091	2,440	2,264	107·7
Serb-Croat-Slovene State	4,178	4,630	3,953	117·1	71,427	56,568	58,753	96·3
Spain	10,776	10,826	10,457	103·5	146,599	144,824	142,419	101·7
Sweden	381	404	352	114·9	12,363	11,298	10,602	106·6
Switzerland	174	174	161	108·3	5,622	5,696	4,871	116·9

54.—Acreage and Production of Cereals and Potatoes in Countries of the World, 1926 and 1927, with five-year average for 1921-25—continued.

Countries.	1926.	1927.	Average 1921-25.	1927 as p.c. of average.	1926.	1927.	Average 1921-25.	1927 as p.c. of average.
Wheat—concluded.	000 acres.	000 acres.	000 acres.	p.c.	000 bush.	000 bush.	000 bush.	p.c.
AMERICA.								
Canada	22,896	22,460	22,083	101·7	407,136	440,025	366,483	120·1
Mexico	1,286	1,227	2,104	58·3	10,333	11,519	10,434	110·4
United States	56,337	58,649	58,092	101·0	831,040	872,307	804,151	108·5
ASIA.								
British India	30,471	31,303	29,643	105·6	324,651	334,992	335,888	99·7
Cyprus	191	171	190	89·7	1,624	2,390	2,283	104·6
Japan	1,146	1,161	1,197	97·0	28,430	29,221	26,903	108·6
Korea	895	897	882	101·7	10,517	9,043	9,858	91·7
Syria and Lebanon	1,277	1,224	1,353	90·5	13,940	14,583	11,378	128·2
AFRICA.								
Algeria	3,741	3,469	3,406	101·8	23,551	28,323	26,716	106·0
Cyrenaica	50	18	40	43·5	161	36	369	9·8
Egypt	1,532	1,655	1,462	113·2	37,207	44,346	36,821	120·4
French Morocco	2,558	2,364	2,272	101·4	16,174	24,618	19,819	124·2
Tripolitania	37	35	31	112·0	176	173	92	188·0
Tunis	1,838	1,399	1,403	99·7	13,044	8,267	8,214	100·6
SOUTHERN HEMISPHERE.								
Argentina	19,275	19,714	16,933	116·4	220,826	229,161	203,387	117·6
Brazil	240	330	224	147·3	4,960	4,203	4,392	95·7
Chile	1,432	1,530	1,446	105·8	23,286	33,524	25,754	130·2
Uruguay	987	1,039	868	119·8	10,234	13,887	9,674	143·5
Australia	11,672	11,823	10,010	118·1	160,671	116,184	128,520	90·4
New Zealand	220	270	224	120·4	7,952	9,200	6,640	138·6
Total	**298,065**	**306,993**	**279,650**	**109·8**	**4,170,609**	**4,245,567**	**3,959,883**	**107·2**
Oats—								
NORTHERN HEMISPHERE. EUROPE.								
Austria	777	769	757	101·6	28,193	28,453	22,066	128·9
Belgium	668	658	657	100·1	47,745	43,390	38,546	112·6
Bulgaria	320	321	362	88·7	6,329	7,041	6,682	105·4
Czechoslovakia	2,083	2,113	2,044	103·4	89,474	94,516	77,204	121·1
Denmark	1,048	1,048	1,118	93·7	56,784	56,412	56,981	99·0
England and Wales	1,863	1,751	2,037	85·9	98,165	88,546	90,660	97·7
Estonia	362	360	384	93·6	8,631	6,331	8,946	70·8
Finland	1,090	1,112	1,058	105·1	38,433	41,044	32,499	126·3
France	8,677	8,544	8,521	100·3	342,703	323,089	282,890	114·2
Germany	8,590	8,589	8,247	104·2	410,094	411,530	341,918	120·4
Greece	271	280	193	144·8	5,229	4,376	3,832	114·2
Hungary	679	646	785	82·3	23,343	21,189	21,312	99·4
Irish Free State	647	645	751	85·8	42,081	43,986	34,853	126·2
Italy	1,231	1,203	1,189	101·2	38,247	28,913	35,375	81·7
Latvia	793	754	740	101·9	17,891	11,487	17,135	67·0
Lithuania	943	766	821	93·3	20,714	15,756	21,512	73·2
Luxemburg	71	70	70	100·0	3,058	2,600	2,005	129·7
Netherlands	381	368	380	96·8	21,205	19,900	19,624	101·4
Northern Ireland	320	310	362	85·6	19,286	18,168	18,312	99·2
Norway	241	240	274	87·6	12,548	11,920	10,735	111·0
Poland	6,437	6,475	5,962	108·6	197,752	219,814	181,486	121·1
Portugal	500	552	550	100·4	4,450	5,203	6,039	86·2
Rumania	2,665	2,680	3,133	85·5	75,153	56,292	59,124	95·2
Russia (Soviet Union)	35,573	42,955	31,414	136·7	929,581	836,456	750,930	111·4
Scotland	940	897	970	92·5	49,412	40,064	45,154	88·7
Serb-Croat-Slovene State	871	965	923	104·6	23,195	18,931	19,430	97·4
Spain	1,863	1,909	1,624	117·6	35,471	36,910	34,048	108·4
Sweden	1,824	1,803	1,808	99·8	80,996	74,254	70,941	104·7
Switzerland	51	51	51	99·8	2,924	2,711	2,626	103·2
AMERICA.								
Canada	12,741	13,240	14,585	90·8	383,416	439,713	457,948	96·0
United States	44,177	42,029	42,851	98·1	1,173,504	1,114,490	1,240,489	89·8

54.—Acreage and Production of Cereals and Potatoes in Countries of the World, 1926 and 1927, with five-year average for 1921-25—continued.

Countries.	1926.	1927.	Average 1921-25.	1927 as p.c. of average.	1926.	1927.	Average 1921-25.	1927 as p.c. of average.
Oats—concluded.	000 acres.	000 acres.	000 acres.	p.c.	000 bush.	000 bush.	000 bush.	p.c.
ASIA.								
Cyprus	18	16	15	100·8	293	249	272	91·9
Japan	269	302	278	108·6	9,535	10,959	10,210	107·3
Korea	277	272	276	98·5	4,043	3,932	4,279	91·9
Syria and Lebanon	60	66	27	242·4	1,394	1,144	465	246·2
AFRICA.								
Algeria	621	527	608	86·7	4,417	9,983	12,631	79·0
French Morocco	56	63	35	180·0	589	1,313	546	240·5
Tunis	69	93	126	73·6	2,010	1,848	2,296	80·5
SOUTHERN HEMISPHERE.								
Argentina	3,171	3,161	2,662	118·7	62,377	49,215	55,799	88·2
Chile	139	136	105	128·9	3,896	6,750	3,721	181·4
Uruguay	101	97	120	80·6	1,351	2,489	2,039	122·1
Total	**143,508**	**148,836**	**138,873**	**107·2**	**4,375,912**	**4,211,367**	**4,103,560**	**102·6**
Barley—								
NORTHERN HEMISPHERE. EUROPE.								
Austria	362	366	334	109·6	9,074	10,934	7,470	146·4
Belgium	87	79	84	94·6	4,202	4,169	4,127	101·0
Bulgaria	552	555	539	102·9	11,085	14,041	9,266	151·5
Czechoslovakia	1,751	1,759	1,674	105·1	52,501	59,014	50,120	117·7
Denmark	770	770	695	110·9	33,416	35,826	32,247	111·1
England and Wales	1,148	1,049	1,352	77·6	42,747	40,227	45,669	88·1
Estonia	300	295	303	97·2	6,039	4,335	5,464	79·3
Finland	272	267	273	97·8	7,170	6,571	5,782	113·6
France	1,706	1,747	1,714	101·9	45,856	50,328	43,894	114·7
Germany	3,671	3,654	3,311	110·4	113,106	125,754	114,216	110·1
Greece	552	559	377	148·6	8,136	7,271	5,688	127·8
Hungary	1,050	1,009	1,096	92·1	25,509	23,685	22,199	106·7
Irish Free State	141	121	157	76·7	6,692	6,295	6,043	104·2
Italy	587	583	567	102·9	11,023	9,443	10,132	93·2
Latvia	470	458	414	110·7	8,661	5,975	6,979	85·6
Lithuania	532	487	463	105·1	11,430	8,630	9,874	87·4
Luxemburg	7	7	8	87·5	184	178	160	111·3
Malta	6	7	6	105·7	269	304	262	115·8
Netherlands	67	66	64	103·7	3,558	3,416	3,321	102·9
Northern Ireland	2	2	3	59·2	72	68	100	67·7
Norway	143	150	137	109·1	5,125	4,672	4,383	106·6
Poland	3,048	3,063	2,874	106·6	71,404	75,062	65,176	115·2
Portugal	185	193	193	100·0	1,487	1,983	2,053	96·6
Rumania	3,834	4,360	4,315	101·0	77,391	57,952	55,497	104·4
Russia (Soviet Union)	18,217	17,479	15,715	111·2	253,020	211,281	279,202	75·7
Scotland	122	117	158	74·2	5,087	4,242	6,248	67·9
Serb-Croat-Slovene State	867	987	902	109·4	17,275	14,449	14,027	103·0
Spain	4,473	4,452	4,343	102·5	96,287	92,223	92,271	99·9
Sweden	443	415	409	101·3	14,869	12,472	12,921	96·5
Switzerland	16	16	16	101·2	565	561	533	105·2
AMERICA.								
Canada	3,647	3,506	3,022	116·0	99,987	96,938	76,900	126·1
United States	7,970	9,454	7,516	125·8	184,905	264,392	186,567	141·7
ASIA.								
British India	6,610	6,387	6,976	91·6	120,587	119,000	133,796	88·9
Cyprus	122	114	116	98·2	1,939	1,820	2,185	83·3
Japan	2,431	2,343	2,630	89·1	88,078	82,485	82,994	99·4
Korea	2,185	2,190	2,131	102·8	38,308	35,313	36,608	96·5
Syria and Lebanon	601	655	807	81·2	10,588	15,325	7,826	195·8
AFRICA.								
Algeria	3,543	3,360	3,017	111·4	23,003	34,555	30,780	112·3
Cyrenaica	136	84	250	33·5	2,047	229	3,819	6·0
Egypt	333	376	382	98·4	10,097	11,961	11,427	104·7
French Morocco	3,157	2,469	2,862	86·3	23,391	33,956	36,955	91·9
Tripolitania	371	235	334	70·4	2,139	1,148	1,837	62·5
Tunis	1,406	857	1,033	83·0	8,819	4,134	6,844	60·4

54.—Acreage and Production of Cereals and Potatoes in Countries of the World, 1926 and 1927, with five-year average for 1921-25—continued.

Countries.	1926.	1927.	Average 1921-25.	1927 as p.c. of average.	1926.	1927.	Average 1921-25.	1927 as p.c. of average.
Barley—concluded.	000 acres.	000 acres.	000 acres.	p.c.	000 bush.	000 bush.	000 bush.	p.c.
SOUTHERN HEMISPHERE.								
Argentina	979	1,186	726	163·4	18,372	14,560	9,925	146·7
Chile	190	168	162	104·0	5,202	7,032	5,339	131·7
Uruguay	5	5	5	101·4	70	80	72	111·6
Union of South Africa	69	86	97	88·7	1,075	816	1,249	65·3
New Zealand	30	21	25	87·4	1,295	781	850	91·9
Total	**79,166**	**78,568**	**74,587**	**105·3**	**1,583,142**	**1,615,886**	**1,551,297**	**104·2**
Rye—								
NORTHERN HEMISPHERE.								
EUROPE.								
Austria	972	948	908	104·4	18,712	20,126	16,818	119·7
Belgium	558	573	559	102·5	20,108	21,854	20,564	106·3
Bulgaria	462	463	442	104·6	7,133	8,243	5,831	141·4
Czechoslovakia	2,054	2,030	2,128	95·4	45,909	49,297	52,201	94·4
Denmark	514	453	535	84·7	12,480	10,236	13,163	77·8
Estonia	336	367	392	93·7	4,490	6,735	6,450	104·4
Finland	565	567	578	98·1	11,909	12,892	11,317	113·9
France	1,958	1,921	2,196	87·5	30,076	33,956	40,645	83·5
Germany	11,694	11,611	10,745	108·1	252,191	269,030	255,946	105·1
Greece	110	124	82	150·6	1,412	1,505	961	156·6
Hungary	1,729	1,656	1,591	104·1	31,416	22,365	26,840	83·3
Irish Free State	7	6	7	87·2	208	182	194	93·5
Italy	299	307	308	99·5	6,496	5,937	6,100	97·3
Latvia	621	633	624	101·5	6,119	10,189	9,535	106·9
Lithuania	1,109	1,240	1,382	89·8	13,811	21,188	23,416	90·5
Luxemburg	17	17	19	94·0	353	354	349	101·4
Netherlands	488	487	500	97·4	13,644	13,489	16,149	83·5
Norway	23	23	28	81·9	647	606	779	77·7
Poland	11,937	12,081	11,006	109·8	197,292	223,943	201,638	111·1
Portugal	591	618	703	87·9	3,638	4,677	5,110	91·5
Rumania	731	702	695	101·0	11,243	9,323	8,371	110·2
Russia (Soviet Union)	69,789	69,585	70,286	99·0	901,599	933,033	876,964	105·3
Serb-Croat-Slovene State	500	529	477	110·9	7,454	5,923	5,930	99·9
Spain	1,866	1,818	1,802	100·9	23,505	26,515	27,722	95·6
Sweden	838	849	836	101·6	23,325	18,726	21,911	85·5
Switzerland	49	49	50	99·1	1,583	1,589	1,643	96·7
AMERICA.								
Canada	754	743	1,386	53·6	12,179	14,951	19,994	74·8
United States	3,578	3,690	4,899	75·3	40,795	58,800	68,007	86·5
SOUTHERN HEMISPHERE.								
Argentina	420	535	380	140·8	5,206	6,614	3,061	216·1
Chile	4	5	4	110·5	57	154	63	241·9
Total	**114,573**	**114,630**	**115,548**	**99·2**	**1,704,990**	**1,812,432**	**1,747,672**	**103·7**
Corn—								
NORTHERN HEMISPHERE.								
EUROPE.								
Austria	152	147	147	100·0	3,825	4,948	3,811	129·8
Bulgaria	1,516	1,662	1,458	114·0	27,312	20,614	21,022	98·1
Czechoslovakia	388	392	390	100·5	10,452	11,755	10,444	112·6
France	834	861	830	100·1	12,686	20,721	14,755	140·4
Hungary	2,631	2,639	2,425	108·8	76,545	68,348	58,354	117·1
Italy	3,769	3,540	3,823	92·6	118,090	83,938	95,691	87·7
Poland	195	196	177	110·9	4,166	4,042	3,300	122·5
Rumania	10,031	10,427	8,799	118·5	239,496	139,095	140,202	99·2
Russia (Soviet Union)	7,295	7,132	8,288	86·0	143,356	148,813	176,631	84·3
Serb-Croat-Slovene State	4,929	5,625	4,759	118·2	134,251	83,009	109,401	75·9
Spain	1,006	1,143	1,167	97·9	17,186	26,105	25,934	100·7
Switzerland	3	3	4	83·3	130	154	180	85·1
AMERICA.								
Canada	210	132	293	45·0	7,813	4,262	12,974	32·8
Mexico	7,484	8,020	7,461	107·5	81,768	81,167	87,348	92·9
United States	99,713	98,914	102,629	96·4	2,692,217	2,773,708	2,850,902	97·3

54.—Acreage and Production of Cereals and Potatoes in Countries of the World, 1926 and 1927, with five-year average for 1921-25—concluded.

Countries.	1926.	1927.	Average 1921-25.	1927 as p.c. of average.	1926.	1927.	Average 1921-25.	1927 as p.c. of average.
Corn—concluded.	000 acres.	000 acres.	000 acres.	p.c.	000 bush.	000 bush.	000 bush.	p.c.
ASIA.								
Korea	246	252	231	109·4	2,831	2,852	2,829	100·8
Syria and Lebanon	158	187	175	90·6	3,634	3,175	2,458	129·2
AFRICA.								
Algeria	27	24	23	104·3	222	241	269	89·6
French Morocco	562	527	437	120·6	4,371	4,788	3,294	145·4
Tunis	54	33	42	78·6	126	98	210	46·7
SOUTHERN HEMISPHERE.								
Argentina	10,599	10,739	8,693	123·5	320,853	303,137	223,460	135·7
Madagascar	211	201	206	97·8	4,034	4,166	4,308	96·7
Union of South Africa	5,084	4,706	4,359	108·0	65,058	77,240	54,320	142·2
Total	**157,097**	**157,502**	**156,816**	**100·4**	**3,970,422**	**3,866,376**	**3,902,097**	**99·1**
Potatoes—								
NORTHERN HEMISPHERE. EUROPE.					000 cwt.	000 cwt.	000 cwt.	
Austria	439	453	406	111·6	28,611	58,784	36,046	163·1
Belgium	397	416	406	102·6	66,167	72,955	64,672	112·8
Bulgaria	26	28	22	127·9	1,064	1,323	717	184·6
Czechoslovakia	1,551	1,608	1,580	101·8	111,261	200,826	148,308	135·4
Denmark	189	189	196	96·6	17,896	11,464	26,443	43·4
England and Wales	499	514	506	101·5	61,891	68,432	70,058	97·7
Estonia	172	176	173	102·0	20,413	16,352	15,464	105·7
Finland	171	174	167	104·2	18,762	16,711	13,086	127·7
France	3,611	3,700	3,607	102·6	245,519	386,404	270,816	142·7
Germany	6,820	6,916	6,753	102·4	662,066	827,841	782,689	105·8
Hungary	620	645	639	100·9	41,328	44,200	34,162	129·4
Irish Free State	375	365	396	92·1	43,273	54,727	40,493	135·2
Italy	871	874	840	104·1	50,949	42,887	39,644	108·2
Latvia	203	211	179	118·3	22,343	15,815	14,786	107·0
Lithuania	362	343	386	89·0	36,703	27,867	37,853	73·6
Luxemburg	39	39	38	102·6	2,569	3,140	3,628	86·5
Malta	5	7	4	175·0	625	630	420	150·0
Netherlands	421	427	430	99·3	65,554	55,671	66,023	84·3
Northern Ireland	153	153	161	95·1	23,941	23,677	22,258	106·4
Norway	119	123	121	102·0	19,722	13,339	16,678	80·0
Poland	5,834	5,946	5,510	107·9	548,482	700,148	585,000	119·7
Rumania	442	488	424	115·3	39,239	45,276	32,567	139·0
Russia (Soviet Union)	12,916	13,680	12,002	114·0	1,091,944	1,205,514	897,380	134·3
Scotland	142	147	146	101·0	20,138	17,898	21,916	81·7
Serb-Croat-Slovene State	548	573	537	106·7	20,724	22,509	21,917	102·7
Spain	769	763	784	97·3	66,597	79,588	58,852	135·2
Sweden	396	390	387	100·8	41,440	23,552	38,980	60·4
Switzerland	118	118	111	106·4	13,448	15,332	14,690	104·4
AMERICA.								
Canada	523	572	606	94·4	46,937	46,458	54,503	85·2
United States	3,122	3,505	3,697	94·8	212,597	244,178	237,150	103·0
ASIA.								
Cyprus	3	9	4	245·1	306	317	247	128·3
Korea	187	189	186	101·7	9,850	9,769	9,797	99·7
Syria and Lebanon	12	16	12	131·7	728	794	885	89·7
AFRICA.								
Algeria	27	24	25	96·0	786	833	1,003	83·1
Tunis	2	2	3	96·2	93	62	91	67·5
SOUTHERN HEMISPHERE.								
Argentina	297	350	331	105·9	21,232	15,170	17,919	84·7
Madagascar	76	54	61	89·0	4,065	2,447	2,589	94·5
New Zealand	25	22	21	103·6	2,616	2,654	2,677	99·2
Total	**42,482**	**44,169**	**41,857**	**105·5**	**3,681,879**	**4,375,544**	**3,702,407**	**118·2**

55.—Average Yields per Acre of Cereals and Potatoes in Countries of the World, 1927 and the five-year Average 1921-25.

Countries.	Wheat.		Oats.		Barley.	
	1927.	Average 1921-25.	1927.	Average 1921-25.	1927.	Average 1921-25.
	bush. per acre.	bush. per acre.	bush. per acre.	bush. per acre.	bush. per acre.	bush. per acre.
NORTHERN HEMISPHERE. EUROPE.						
Austria	23·7	18·7	37·0	29·1	29·9	22·4
Belgium	41·6	38·9	65·9	58·7	52·8	49·1
Bulgaria	17·8	13·1	21·9	18·5	25·3	17·2
Czechoslovakia	25·5	23·7	44·7	37·8	33·5	29·9
Denmark	37·9	44·4	53·8	51·0	46·5	46·4
England and Wales	32·5	33·3	50·6	44·5	38·3	33·8
Estonia	16·1	14·2	27·6	23·3	14·7	18·0
Finland	24·2	20·5	36·9	30·7	24·6	21·2
France	21·1	21·5	37·8	33·2	28·8	25·6
Germany	27·9	27·3	47·9	41·5	34·4	34·5
Greece	11·4	8·9	15·0	19·9	13·0	15·1
Hungary	19·0	17·8	32·8	27·1	23·5	20·3
Irish Free State	41·8	32·9	68·2	46·4	52·0	38·5
Italy	15·9	17·1	24·0	29·8	16·2	17·9
Latvia	18·2	16·0	15·2	23·2	13·0	16·9
Lithuania	17·8	16·9	20·6	26·2	17·7	21·3
Luxemburg	19·5	17·0	37·1	28·6	25·4	20·0
Malta	32·7	27·1	–	–	43·4	43·7
Netherlands	40·2	41·9	54·1	51·6	51·8	51·9
Northern Ireland	35·3	31·0	58·6	50·6	34·0	33·3
Norway	24·2	23·6	49·7	39·2	31·1	32·0
Poland	19·3	17·5	33·9	30·4	24·5	22·7
Portugal	10·6	10·4	9·4	11·0	10·3	10·6
Rumania	12·6	12·7	21·0	18·9	13·3	12·9
Russia (Soviet Union)	9·8	12·2	19·5	23·9	12·1	17·8
Scotland	36·4	39·7	44·7	46·6	36·3	39·5
Serb-Croat-Slovene State	12·2	14·9	19·6	21·1	14·6	15·6
Spain	13·4	13·6	19·3	21·0	20·7	21·2
Sweden	28·0	30·1	41·2	39·2	30·0	30·1
Switzerland	32·7	30·3	53·2	51·5	35·1	35·1
AMERICA.						
Canada	19·5	16·6	33·2	31·4	27·7	25·4
Mexico	9·4	5·0	–	–	–	–
United States	14·9	13·8	26·5	28·9	28·0	24·8
ASIA.						
British India	10·7	11·3	–	–	18·6	19·2
Cyprus	14·0	12·0	15·6	18·1	16·1	19·2
Japan	25·2	22·5	36·3	36·7	35·2	35·4
Korea	10·1	11·2	14·5	15·5	16·1	17·2
Syria and Lebanon	11·9	8·4	17·3	17·2	23·4	9·7
AFRICA.						
Algeria	8·2	7·8	18·9	20·8	10·3	10·2
Cyrenaica	2·0	9·2	–	–	2·7	15·3
Egypt	26·8	25·2	–	–	31·8	30·4
French Morocco	10·7	8·7	20·8	15·6	13·8	15·0
Tripolitania	4·9	3·0	–	–	48·9	55·0
Tunis	5·9	5·9	19·9	18·2	4·8	6·6
SOUTHERN HEMISPHERE.						
Argentina	12·1	12·0	15·6	21·0	12·3	13·7
Brazil	12·7	19·6	–	–	–	–
Chile	21·9	17·8	49·6	35·4	41·9	33·0
Uruguay	13·4	11·1	25·7	17·0	16·0	14·4
Union of South Africa	–	–	–	–	9·5	12·9
Australia	9·8	12·8	–	–	–	–
New Zealand	34·1	29·6	–	–	37·2	34·0
Average	**13·8**	**14·2**	**28·3**	**29·5**	**20·6**	**20·8**

55.—Average Yields per Acre of Cereals and Potatoes in Countries of the World, 1927, and the five-year Average 1921-25—concluded.

Countries.	Rye.		Corn.		Potatoes.	
	1927.	Average. 1921-25.	1927.	Average 1921-25.	1927.	Average 1921-25.
	bush. per acre.	bush. per acre.	bush. per acre.	bush. per acre.	cwt. per acre.	cwt. per acre.
NORTHERN HEMISPHERE, EUROPE.						
Austria	21·2	18·5	33·7	25·9	129·8	88·8
Belgium	38·1	36·8	–	–	175·4	159·3
Bulgaria	17·8	13·2	12·4	14·4	47·3	32·6
Czechoslovakia	24·3	24·5	30·0	26·8	124·9	93·9
Denmark	22·6	24·6	–	–	60·7	134·9
England and Wales	–	–	–	–	133·1	138·5
Estonia	18·4	16·5	–	–	92·9	89·4
Finland	22·7	19·6	–	–	96·0	78·4
France	17·7	18·5	24·1	17·8	104·4	75·1
Germany	23·2	23·8	–	–	119·7	115·9
Greece	12·1	11·7	–	–	–	–
Hungary	13·5	16·9	25·9	24·1	68·5	53·5
Irish Free State	30·3	27·7	–	–	149·9	102·3
Italy	19·3	19·8	23·7	25·0	49·1	47·2
Latvia	16·1	15·3	–	–	75·0	82·6
Lithuania	17·1	16·9	–	–	81·2	98·1
Luxemburg	20·8	18·4	–	–	80·5	95·5
Malta	–	–	–	–	90·0	105·0
Netherlands	27·7	32·3	–	–	129·7	153·5
Northern Ireland	–	–	–	–	154·8	138·2
Norway	26·3	27·8	–	–	108·4	137·8
Poland	18·5	18·3	20·6	18·6	117·8	106·2
Portugal	7·6	7·3	–	–	–	–
Rumania	13·3	12·0	13·3	15·9	92·8	76·8
Russia (Soviet Union)	13·4	12·5	20·9	21·3	88·1	74·8
Scotland	–	–	–	–	121·8	150·1
Serb-Croat-Slovene State	11·2	12·4	14·8	23·0	39·3	40·8
Spain	14·6	15·4	22·8	22·2	104·3	75·1
Sweden	22·1	26·2	–	–	60·4	100·7
Switzerland	31·8	32·9	51·3	45·0	129·9	132·3
NORTH AMERICA.						
Canada	20·1	14·4	32·4	44·3	81·2	89·9
Mexico	–	–	10·1	11·7	–	–
United States	15·9	13·9	28·0	27·8	69·7	64·1
ASIA.						
Cyprus	–	–	–	–	35·2	61·8
Korea	–	–	11·3	12·2	51·7	52·7
Syria and Lebanon	–	–	17·0	14·0	49·6	73·8
AFRICA.						
Algeria	–	–	10·0	11·7	34·7	40·1
French Morocco	–	–	9·1	7·5	–	–
Tunis	–	–	3·0	5·0	31·0	30·3
SOUTHERN HEMISPHERE.						
Argentina	12·4	8·1	28·2	25·7	43·3	54·1
Chile	30·8	15·8	–	–	–	–
Madagascar	–	–	20·7	20·9	45·3	42·4
Union of South Africa	–	–	16·4	12·5	–	–
New Zealand	–	–	–	–	120·6	127·5
Average	**15·8**	**15·1**	**24·6**	**24·5**	**99·1**	**88·5**

World Exports and Imports of Wheat and Flour.—Statistics showing the exports and imports of wheat and wheat flour for the principal countries of the world in the crop year ended July 31, 1928, with comparative figures for the previous crop year, are shown in Table **56.** This information is taken from data published by the International Institute of Agriculture. During the crop year 1927-28, a

total of 682,812,000 bushels of wheat are shown as exported, as compared with 670,856,000 bushels in the previous year. The four chief exporting countries made the following contributions during the crop year 1927-28, figures for the previous year being shown within brackets, in bushels:—Canada, 278,097,000 (251,264,000); Argentina, 169,419,000 (135,229,000); United States, 141,751,000 (148,626,000); Australia, 50,287,000 (78,579,000). Exports of wheat flour amounted to 36,982,000 barrels and 37,513,000 barrels respectively during the crop years 1927-28 and 1926-27. Shipments from the United States totalled 12,779,000 barrels in 1927-28 as compared with 13,383,000 barrels in 1926-27; from Canada 9,799,000 and 9,237,000 barrels respectively and from Australia 4,381,000 and 5,169,000 barrels. Canada was the largest exporter of wheat, the second largest exporter of wheat flour and the largest exporter of both wheat and wheat flour expressed as wheat in both years.

The total imports of wheat for the crop year ended July 31, 1928 amounted to 621,150,000 bushels, as compared with 619,161,000 bushels for the previous year. Great Britain and Northern Ireland imported 199,868,000 bushels in 1927-28, as compared with 199,423,000 in 1926-27; Germany, 93,842,000 bushels as compared with 92,879,000 bushels; Italy, 88,610,000 bushels as compared with 87,482,000 bushels, and France 46,296,000 bushels as compared with 62,467,000 bushels. Great Britain and Ireland imported 5,665,000 barrels of wheat flour as compared with 6,398,000 in the previous year, Czechoslovakia, 2,112,000 barrels as compared with 1,709,000 barrels and the Netherlands, 2,069,000 barrels as compared with 1,831,000 barrels.

56.—Exports of Wheat and Flour from the Principal Wheat-exporting Countries and Imports of Wheat and Flour to the Principal Wheat-importing Countries, crop years ended July 31, 1927 and 1928.

Wheat.	Twelve months August 1—July 31.		Flour.	Twelve months August 1—July 31.	
	1926-27.	1927-28.		1926-27.	1927-28.
	bush.	bush.		brl.	brl.
Exports—			Exports—		
United States	148,626,000	141,751,000	United States	13,383,000	12,779,000
Canada	251,264,000	278,097,000	Canada	9,237,000	9,799,000
Argentina	135,229,000	169,419,000	Argentina	1,729,000	1,828,000
Australia	78,579,000	50,287,000	Australia	5,169,000	4,381,000
India	10,505,000	7,147,000	Hungary	1,587,000	2,108,000
Russia	5,295,000	728,000	Rumania	955,000	439,000
Hungary	14,473,000	12,004,000	India	718,000	673,000
Rumania	6,180,000	5,423,000	Japan	746,000	983,000
Serb-Croat-SloveneState	8,260,000	764,000	Other countries	3,989,000	3,992,000
Other countries	12,445,000	17,192,000			
Totals	**670,856,000**	**682,812,000**	**Totals**	**37,513,000**	**36,982,000**
Imports—			Imports—		
Germany	92,879,000	93,842,000	Germany	972,000	488,000
Austria	7,176,000	6,651,000	Austria	1,454,000	1,516,000
Belgium	40,256,000	44,007,000	Denmark	709,000	846,000
France	62,467,000	46,296,000	Finland	1,098,000	1,289,000
Great Britain and Northern Ireland	199,423,000	199,868,000	Great Britain and Northern Ireland	6,398,000	5,665,000
Irish Free State	11,280,000	9,733,000	Irish Free State	1,878,000	1,934,000
Italy	87,482,000	88,610,000	Norway	612,000	755,000
Netherlands	20,668,000	21,958,000	Netherlands	1,831,000	2,069,000
Sweden	7,837,000	9,204,000	Czechoslovakia	1,709,000	2,112,000
Switzerland	16,318,000	18,408,000	Egypt	1,894,000	1,495,000
Czechoslovakia	12,202,000	11,585,000	Other countries	2,436,000	2,530,000
Japan	18,081,000	20,951,000			
Other countries	43,092,000	50,037,000			
Totals	**619,161,000**	**621,150,000**	**Totals**	**20,991,000**	**20,699,000**

The total exports of wheat and wheat flour, expressed in bushels of wheat by conversion at the rate of 196 lb. of flour to 4½ bushels of wheat, were 849,231,000 bushels for the twelve months ended July 31, 1928, as compared with 839,665,000 bushels for the twelve months ended July 31, 1927. The imports of wheat and flour expressed as wheat for the same period were, 714,296,000 bushels for 1928 and 713,621,000 bushels for 1927.

World's Live Stock.—The statistics of Table **57**, taken from data published by the International Institute of Agriculture, show as nearly as possible the world situation with regard to live stock about 1927, as compared with the pre-war situation. For many countries the figures are the result of careful enumeration, while for others they represent only quite approximate estimates. A substantial decrease is shown in the number of horses (8·9 p.c.), all continents showing decreases with the exception of Asia and Africa. Cattle have increased in all continents, the total increase being 11·4 p.c. Sheep have increased by 6·5 p.c., South America alone showing a decrease. Pigs show an increase of 9·7 p.c., increases being shown everywhere except South America and Africa.

57.—Numbers of Farm Animals, by Continents, circa 1927, as compared with 1913.

Farm Animals and Continents.	Number at the date nearest		Increase (+) or decrease (−) in 1927.	
	1913.	1927.	Actual figures.	Percentages.
	000 head.	000 head.	000 head.	p.c.
Horses—				
Europe	58,220	54,121	− 4,099	− 7·0
North and Central America	26,134	20,465	− 5,669	− 21·7
South America	18,162	17,653	− 509	− 2·8
Asia (excluding Russia)	4,914	5,394	+ 480	+ 9·8
Africa	1,692	2,079	+ 387	+ 22·9
Oceania	2,976	2,445	− 531	− 17·8
Total	**112,098**	**102,157**	**− 9,941**	**− 8·9**
Cattle—				
Europe	159,044	168,174	+ 9,130	+ 5·7
North and Central America	76,485	79,415	+ 2,930	+ 3·8
South America	86,662	101,053	+14,391	+ 16·6
Asia (excluding Russia)	131,300	143,927	+12,627	+ 9·6
Africa	34,537	51,270	+16,733	+ 48·4
Oceania	13,859	15,476	+ 1,617	+ 11·7
Total	**501,887**	**559,315**	**+57,428**	**+ 11·4**
Sheep—				
Europe	238,050	249,970	+11,920	+ 5·0
North and Central America	43,148	51,097	+ 7,949	+ 18·4
South America	100,392	89,642	−10,750	− 10·7
Asia (excluding Russia)	41,802	43,994	+ 2,192	+ 5·2
Africa	76,583	84,118	+ 7,535	+ 9·8
Oceania	109,331	129,947	+20,616	+ 18·9
Total	**609,306**	**648,768**	**+39,462**	**+ 6·5**
Pigs—				
Europe	89,548	92,764	+ 3,216	+ 3·6
North and Central America	60,595	68,815	+ 8,220	+ 13·6
South America	24,759	21,232	− 3,527	− 14·1
Asia (excluding Russia)	8,550	18,521	+ 9,971	+116·6
Africa	2,558	2,501	− 57	− 2·2
Oceania	1,252	1,605	+ 353	+ 28·2
Total	**187,262**	**205,438**	**+18,176**	**+ 9·7**

CHAPTER IX.—FORESTRY.

Section 1.—Physiography, Geology and Climate as affecting the Forests.

The Dominion of Canada may be roughly divided into three main drainage areas—the Pacific slope west of the Rocky mountains, the Great Plains region draining into the Arctic and Hudson bay, and the basin of the Great Lakes and the St. Lawrence, together with the Maritime Provinces. These three regions support three distinct types of forest growth.

The Pacific Slope.—The Pacific slope is characterized by numerous systems of mountains running approximately parallel and extending from the southeast to the northwest. The Rocky mountains vary in elevation from 5,000 to 13,000 feet above sea level, with individual peaks extending well above 10,000 feet. Between this system and the Pacific are the Columbian system, comprising the Selkirk and Caribou mountains, the Interior plateau system, the Cassiar and Yukon systems, the Pacific system, comprising the Cascade, Coast and lesser ranges, terminating with the sunken Insular system whose upper elevations form Vancouver island, the Queen Charlotte group and other coast islands. The chief rivers follow the valleys between these ranges, breaking through in some cases along the shorter cross valleys from east to west.

The Rocky mountains are formed chiefly of Palæozoic rocks, as are also the islands on the coast. The Coast range is almost entirely granitic and the Selkirks Precambrian or Cambrian. The intervening ranges are of mixed formations, varying from rocks of sedimentary origin to granites. The best soil in British Columbia is concentrated in valley bottoms or alluvial deltas, and the purely agricultural area has been estimated at about 10 p.c. of the land area.

The climate along the coast is mild and humid, with a mean annual temperature varying from 44° to 49° F. The precipitation is the heaviest in Canada, varying from 40 to 120 inches. The greater part of this precipitation falls during autumn and winter, however, only 30 p.c. falling during the growing season, to which fact is sometimes ascribed the scarcity of deciduous-leaved forest growth, which requires more moisture during the growing season. In any case, coniferous tree growth in this region is the most luxuriant in Canada, and the forests have the most rapid rate of growth, the largest individual trees and the heaviest stands of timber in Canada, extending from sea level up to elevations of 3,500 or 4,000 feet. The Interior Dry belt of British Columbia has a low annual precipitation, varying from 10 to 20 inches. Extremes of temperature from 100° F. to −45° F. make this a region unfavourable to tree growth. The winds from the Pacific, which precipitate most of their moisture on the Coast and Cascade mountains, cross this interior plateau, leaving its southern part in a semi-arid state, and give up a large part of what moisture remains when they reach the Selkirk and Rocky mountains, forming what may be termed the Interior Wet belt, centred in the Columbia valley. Here the precipitation averages over 30 and sometimes reaches 60 inches, taking the form of snow in higher altitudes. Temperatures vary from 100° F. to —17° F. In the Rocky Mountain range itself the climate is more extreme and variable than to the westward.

The Great Plains.—East of the Rockies lies the Great Plains region, composed of a variety of topographical types. From the foothills of the Rockies, the country slopes gradually eastward and northward. The prairie country extends from the international boundary to the 55th parallel along the foothills, gradually tapering down toward the east to a point near the lake of the Woods. Of this area, 105,000 square miles is now almost entirely treeless, with rich fertile soil, and is at present a purely agricultural or pastoral country. Whether its present treeless condition is due to climatic or other causes is problematical, but the presence of isolated patches of tree growth in situations well protected from fire, the ease with which these natural groves can be increased and new plantations established by artificial planting and protection from prairie fires, would seem to indicate that repeated burning accounts, at least in part, for its present treeless state. The underlying rocks are of the Tertiary and Mesozoic ages. The climate of Alberta is extremely variable in winter, due to a warm, dry wind known as the "Chinook", which blows from the south and southwest and extends its influence from the international boundary to the Peace river and eastward to Regina in Saskatchewan. In summer the isotherms run almost due north and south in Alberta. Rainfall varies from 15 to 20 inches. The temperature in Manitoba has an absolute recorded range of 150° F., with a mean range of 71°. Saskatchewan and Alberta are more temperate, especially where they are affected by the "Chinook". North of the treeless prairies is a region largely unexplored, covered at first by a comparatively light forest growth which toward the north and east gives way to the sub-Arctic "tundra"—a region of muskeg and bare, glacier-worn rocks of the Laurentian and Precambrian types.

These Laurentian rocks in Canada form the Archæan or Canadian Shield, with a distinct type of topography. This rock formation covers a huge irregular triangle with its apex near the Thousand islands in the St. Lawrence, from which point one arm extends northwesterly to the mouth of the Mackenzie river and the other northeasterly down the St. Lawrence valley to include the Labrador peninsula. This entire region has been reduced to a peneplain condition by repeated glacial action which has worn down the high elevations and scoured out most of the soil except in isolated depressions. It is covered with innumerable lakes, muskeg or bogs and rivers. The climate in the northern portion is as a rule too severe for continuous successful agriculture, but this region is covered by a comparatively light forest growth, gradually thinning out toward the north and toward Hudson bay and James bay to the "tundra" type referred to. The southern portion of the shield is to a great extent agricultural land, actual or potential, much of it being still heavily forested.

The St. Lawrence Basin and the Atlantic Slope.—The basin of the St. Lawrence and Great Lakes contains a variety of topographical and geological types. The north shores of lake Superior and Georgian bay, the upper Ottawa River valley and the southern part of Labrador, are part of the Laurentian Shield already described. Here the climate is tempered in part by the presence of the lakes and the gulf of St. Lawrence, but is, nevertheless, severe and variable. To the south, soil and climate improve, and the southwestern peninsula of Ontario, the north shore of lake Ontario and the St. Lawrence valley are all essentially agricultural land. The rock here is of sedimentary origin, mostly of the Palæozoic age.

The Maritime Provinces, with a general slope towards the Atlantic, are varied in topography and geology. The climate resembles that of Southern Ontario, being modified by the presence of the ocean. Precipitation is above 35 inches annually. This region supports a type of forest similar to that of the southern portion of the Archæan Shield.

MAP OF THE
DOMINION OF CANADA
SHOWING
FOREST REGIONS
Scale of Miles
100 0 100 200 300 400 500
Treeless
NORTHWEST TERRITORIES
Sub Arctic Belt
Rocky Mt. Belt
GREAT PLAINS REGION
Prairie Belt
Coast Belt
Dry Belt
Forest Belt
Sub Arctic Forest Belt
Arctic Forest Belt
Sub EASTERN Arctic REGION
Northern Transition Belt
Mixed & Soft Wood Belt
Hard Wood Belt
Carolinian Belt
Treeless
LABRADOR
NEWFOUNDLAND
HUDSON BAY
UNITED STATES
ATLANTIC OCEAN
ALASKA
YUKON
MANITOBA
ONTARIO
QUEBEC
NEW BRUNSWICK
NOVA SCOTIA
PRINCE EDWARD ISLAND
VANCOUVER ISLAND
QUEEN CHARLOTTE I.
Herschel I.
Mackenzie R.
Peace R.
Athabaska R.
Churchill R.
Nelson R.
Saskatchewan R.
Red R.
Assiniboine R.
Winnipeg R.
Lake Winnipeg
Lake Superior
Lake of the Woods
Great Bear Lake
Great Slave Lake
L. Athabaska
L. Athabaska
L. Garry
Arctic Circle
Hudson Strait
James Bay
Gulf of St. Lawrence
Fox Channel
Baffin Land
Cumberland Sound
Southampton I.
Prince Rupert
Vancouver
Victoria
Seattle
Edmonton
Calgary
Regina
Saskatoon
Winnipeg
Brandon
Emerson
Port Arthur
Fort William
Sault Ste. Marie
Sudbury
Ottawa
Montreal
Toronto
Kingston
Hamilton
London
Windsor
Detroit
Lake Erie
Portland
Boston
NEW YORK
Sydney
Halifax
St. John
Anticosti
Fort Simpson
Fort Smith
Fort Liard
Fort Nelson
Fort Churchill
Fort Chimo
Port Nelson
York Factory
Moose Jaw
Medicine Hat
Lethbridge
Battleford
Prince Albert
Edmonton
Dawson
Whitehorse
Norman
Good Hope
Coronation G.
Wollaston Land
Victoria Land
Pr. Albert Land
Pr. of Wales I.
Cockburn Land
Boothia Pen.
Melville Pen.
Foxe Land
Baffin Land
Cumberland Pen.
Kent Pen.
Mt. Pherson
Mt. Wilcox
Mt. Hayes
Mt. Logan
Mt. Elias
Mt. St. Elias
Mt. Robson
Mt. Brown
Mt. Assiniboine
Mt. Edith Cavell
Mt. Sir Donald
Mt. Revelstoke
Mt. Stephen
Mt. Lefroy
Mt. Victoria
Mt. Temple
Mt. Hector
Mt. Goodsir
Mt. Forbes
Mt. Columbia
Mt. Brown
Mt. Robson
Mt. Assiniboine
Mt. Edith Cavell
Mt. Sir Donald
Mt. Revelstoke
Mt. Stephen
Mt. Lefroy
Mt. Victoria
Mt. Temple
Mt. Hector
Mt. Goodsir
Mt. Forbes
Mt. Columbia

Section 2.—Main Types of Forest Growth.

Physiographic, climatic and soil conditions in Canada generally seem to favour the coniferous type of forest. While the more fertile portions of Ontario, Quebec and the Maritime Provinces supported a heavy virgin growth of hardwoods, the greater part of Canada's forest area is covered with spruce, pine, balsam, Douglas fir and other coniferous softwoods. Three main groups of forest growth in Canada follow the main physiographic divisions already mentioned. These groups are the Cordilleran, the Great Plains and the Eastern forests.

The Cordilleran Forest.—The Cordilleran forest, which covers the greater part of the Pacific slope, may be subdivided into the Coast belt, the Interior Dry belt, the Interior Wet belt and the Rocky Mountain belt. The Coast belt includes several distinct forest types, their character being determined by variations in climatic and topographic conditions, among which altitude and precipitation have had the greatest effect on forest growth. Douglas fir and red cedar are the principal species in the southern portion of the belt at altitudes up to 2,000 or 2,500 feet. With these are associated hemlock, white pine, amabilis and lowland fir. Toward the north and at higher altitudes, Douglas fir disappears and red cedar and hemlock are the important trees, with amabilis fir and yellow cypress as subsidiaries. In the Queen Charlotte islands and along the northern part of the coast, Sitka spruce and western hemlock form a lowland type.

Western yellow or "bull" pine predominates at low altitudes, bordering on the grass lands in the Interior Dry belt. Douglas fir gradually increases in importance until it predominates at elevations up to 3,500 and 4,500 feet. Western larch covers a limited area usually between the true yellow pine and Douglas fir types. At the northern latitudinal and upper altitudinal limits of the Douglas fir type, an Engelmann spruce type develops, which merges into a spruce-alpine fir type at still higher altitudes. Lodgepole pine has taken the place of Douglas fir, Engelmann spruce, and, in some cases, yellow pine on burned-over areas, and has become to a considerable extent established as a distinct type.

Forest types similar to those of the coast have developed in the Interior Wet belt. In the southern portion of this belt, red cedar predominates in the wetter situations, mixed with Douglas fir, Engelmann spruce, white pine, hemlock, western larch, alpine fir, lowland fir and cottonwood. On the benches and lower valley slopes, hemlock and cedar are the important species. Engelmann spruce replaces hemlock at higher elevations, cedar gradually disappears and the spruce-alpine fir type stretches up to timber line. To the north, Engelmann spruce and alpine fir are more prominent and the other species are gradually eliminated.

The Rocky Mountain belt includes portions of the Dry belt types to the south and those of the Interior Wet belt farther north. Otherwise the typical forest of the Rocky mountains is made up of Engelmann spruce and some white spruce, with an increasing proportion of alpine fir as the altitude increases. This type has suffered so severely from fire, especially on the dry eastern slopes, that lodgepole pine has established itself permanently in some cases and temporarily in others on burned-over areas.

In the sub-Arctic belt, comprising the Yukon plateau and that part of the Rocky Mountain system north of 58°, the general elevation is over 4,000 feet, the climate is severe, the growing season short and precipitation scant. As a result, tree growth is slow and confined to favourable sites in valleys. The timber is small and of poor quality. It is however of great local value in the mining industry

and to trappers. The principal type is the spruce-alpine fir, with lodgepole pine on poorer sites, and poplar and willow on richer soils on burned-over areas.

Most of the commercially important species of the Cordilleran region are confined to British Columbia. The spruce-fir-lodgepole pine type of the northern interior extends across the Rockies into the foot-hills of Alberta. Certain species, such as Douglas fir, Engelmann spruce, lowland and alpine fir and lodgepole pine, are also found in western Alberta, but in few cases do they extend any great distance eastward.

The Forests of the Great Plains.—The Great Plains region may be divided into the Prairie, Northern Forest and sub-Arctic belts. There are no great variations in altitude in the region, and latitude and soil conditions, especially drainage, determine the distribution of forest types. The Prairie belt in southern Alberta, Saskatchewan and Manitoba extends north from the international boundary for 200 to 400 miles. Patches of tree growth in protected situations are made up chiefly of aspen poplar, with some white spruce and jack pine. North of this purely agricultural and pastoral area is the great Northern Forest belt, from 300 to 400 miles wide, which extends from Alaska to Labrador, covering the greater part of the Laurentian Shield as far as the limits of commercial tree growth. Originally, white spruce predominated over this entire belt and it still forms the most important type commercially, although it has suffered severely through forest fires. In the East, balsam fir is an important associate, and the spruce-balsam fir type makes up most of the pulpwood resources of Eastern Canada. The black spruce-eastern larch (tamarack) type occupies poorly-drained areas within this belt. Enormous areas have been burned over by forest fires. Aspen poplar has replaced the spruce and balsam on the best soil in these areas, and is now the most prevalent species, although it will eventually be replaced by conifers where natural reproduction is possible. Over vast areas, however, there is no immediate prospect of securing a return to coniferous forest by natural agencies. Jack pine has taken possession of the dryer, lighter soils, in some cases permanently. Paper birch comes in with aspen poplar toward the east, and balsam poplar occurs in the moister situations. Jack pine, aspen and balsam poplar reach a higher development along the Peace river in northern Alberta than they do elsewhere in America. Along its northern margin this belt merges into the sub-Arctic "tundra", with tree growth confined to narrow strips along waterways. Vigorous tree growth and fairly large timber are found along these shallow valleys as far north as 67°, indicating that soil is more important than climate in defining the limits of tree growth To the northward, balsam fir disappears early from the forest growth, followed by balsam poplar, jack pine, aspen and paper birch, leaving white spruce, black spruce, tamarack or larch, and willow to define the northern limit of tree growth. This may be roughly indicated by a line drawn from the mouth of the Mackenzie river on the Arctic ocean to the mouth of the Churchill river on Hudson bay and across the Labrador peninsula at about 58° N. latitude.

The Eastern Forests.—In southeastern Canada a number of belts of forest growth with distinctive characteristics are recognized. The hardwood belts include the Carolinian zone, confined to the north shore of lake Erie and the western part of lake Ontario. This is important only as forming the northern fringe of a type which covers a large area in the central Eastern United States, and includes a number of species such as tulip, sassafras, etc., not found elsewhere in Canada. North of this zone, still in the purely agricultural and pastoral area, the original

forests were of the commercially important hardwoods, such as maple, elm, basswood, oak, yellow birch, hickory and beech, with patches of pine, hemlock and other conifers on the lighter soils. This area has been largely cleared and devoted to agriculture, and the original forest type is to be seen only on farmers' wood lots.

Since the beginning of the lumbering industry in Canada, the region north of this belt, extending, roughly speaking, to the height of land between the St. Lawrence and Hudson bay waters, has been the centre of the most extensive exploitation, and still occupies that position as far as Eastern Canada is concerned. The forest types which still exist in this region vary considerably owing to soil and other conditions, but generally speaking white pine occupies the better situations on the lighter soils, and reaches its highest development in this belt. With it is frequently associated the red or Norway pine. On heavier soils, spruce, hemlock and the tolerant hardwoods occupy a minor position. Cedar, tamarack and black spruce form typical stands in poorly drained situations. Hardwood ridges, carrying chiefly maple and yellow birch, occur in the southern part of this belt. These, with hemlock, extend north to a line running approximately from the northeast corner of lake Superior to the mouth of the Saguenay river. The extensive lumbering operations of the past century, together with repeated forest fires, have greatly modified these original types. The exclusive cutting of white and red pine, practised until recently, has resulted in the displacement of these species by spruce, balsam fir, jack pine and the hardwoods, the spruce-balsam fir pulpwood areas being the most valuable type remaining. Jack pine has come in extensively on burned-over areas on lighter soils and in some cases has taken permanent possession of such sites. On account of its value for railway ties and pulpwood and the ease with which it can be grown it is not at all an undesirable species to perpetuate. Aspen and paper birch are also rapidly becoming established as temporary types. Along its northern border, this mixed hardwood and softwood type merges into the northern forest belt already described, with the disappearance of first the hemlock and the tolerant hardwoods and then the white and red pines.

The Acadian belt covers the Maritime Provinces and the south shore of the St. Lawrence in Quebec. The forest is similar to that of the New England states, being characterized by red spruce. With this are found varying proportions of white spruce and balsam fir. In the mixed softwood and hardwood type, which also occurs in this belt, white pine and hemlock occur, with yellow birch, maple and beech representing the commercial hardwoods. Cedar is fairly abundant in the western portion of this region. Burned-over areas in the Acadian belt are chiefly occupied by aspen and white birch as temporary species.

Section 3.—Important Tree Species.

In Canada there are approximately 160 different species and varieties of plants reaching tree size. Only 31 of these are coniferous, but their wood forms 80 p.c. of our standing timber and 95 p.c. of our sawn lumber. While the actual number of species of deciduous-leaved trees seems large in comparison to their commercial importance, out of a total of some 90 species and varieties only four or five are worthy of comparison with the conifers. A detailed description of the more important species of Canadian forest trees was given on pp. 282-285 of the 1924 Year Book.

Section 4.—Forest Resources.

Areas.—The total land area of Canada, revised according to the Labrador Boundary Award of 1927, has been estimated at 3,542,049 square miles, of which 560,000 square miles is considered as being suitable for agricultural or pastoral purposes. According to the 1921 Census about 220,134 square miles of this agricultural land was occupied and about 115,770 square miles was improved.

The total area covered by existing forests has been estimated at 1,151,454 square miles, of which about 82,260 square miles is land, which if cleared would be suitable for agriculture. Under the most economic arrangement about 52,000 square miles of this last area should be cleared and devoted to field crops and pasturage and the remaining 30,000 square miles should be and no doubt will be left under forest cover in the form of farmers' woodlots. This leaves an area of 1,099,194 square miles of land which can be utilized to the best advantage under forest.

Of the total area under forest at the present time, amounting to 1,151,454 square miles and including the 82,260 square miles of agricultural land, about 200,000 square miles carries mature, merchantable timber, 111,234 square miles carries immature but nevertheless merchantable timber and 554,641 square miles carries young growth which if protected from fire and other damage will eventually produce merchantable timber. All this area is so situated as to be commercially exploitable at present. The remaining 285,574 square miles is considered as inaccessible or unprofitable to operate under present conditions. As the result of the constant and inevitable improvement in conditions affecting profitable exploitation, such as the extension of settlement and transportation facilities, the increasing world scarcity of forest products, and the ever increasing demand for these products, due to the development of industry and the discovery of new uses for wood, and the improvements in the methods, equipment and machinery used in logging and manufacturing forest products, much, if not all, of this inaccessible timber will eventually become commercially exploitable.

In Canada as a whole 6·6 p.c. of the total forest area has been permanently dedicated to forest production. This area includes the National Forests and all those provincial forest reserves and parks in which forest utilization is permitted. The National Forests include 34,170 square miles, the British Columbia forest reserves 10,146 square miles, the Ontario reserves and parks 22,815 square miles, and the Quebec reserves and parks 8,914 square miles, making a total of 76,045 square miles.

Of the total forest area 9·6 p.c. has been permanently alienated, being owned in fee simple by private individuals or corporations. On 13·2 p.c. of the area the Crown still holds title to the land but has alienated the right to cut timber under lease or license. So far 77·2 p.c. has not been alienated in any way. It may be said that 90·4 p.c. of Canada's forest area is still owned by the State and, subject only to certain temporary privileges granted to limit holders, may at any time be placed under forest management and dedicated to forest production.

Volume of Standing Timber.—In 1923, the total stand of timber in Canada was estimated to be approximately 246,792 million cubic feet, of which 198,410 million cubic feet was of coniferous species and 48,382 million cubic feet of broad-leaved species.

During the years 1922-1926, the average annual depletion due to use was 1,860 million cubic feet of conifers, and 848 million cubic feet of hardwoods. The loss from fire is estimated at 730 million cubic feet of conifers and 170 million cubic feet of hardwoods. Though no very wide-spread epidemics of insects or fungous diseases have occurred, the spruce bud-worm and various bark-beetles have been active in some localities, and there is a constant loss through decay. In the absence of any basic data on which to estimate the losses from these causes, they have been taken to nearly equal that from fire -perhaps 800 million cubic feet. The total depletion during the five years is therefore estimated to have been approximately 22,000 million cubic feet. To what extent this has been replaced by increment, no one knows, but considering the preponderance of the younger age-classes in the reproduction, it is felt that there has been a considerable net depletion in merchantable timber, amounting to perhaps 9,000 million cubic feet. Additional data secured by the Royal Commission on Pulpwood were the basis of a revision in the estimate of the stand of merchantable timber and account for the balance of the reduction from the estimate of 246,792 million cubic feet in 1923 to that of 224,304 million cubic feet in 1927 as shown in Table 1.

It must be borne in mind, however, that on a large proportion of the forest land in Canada no comprehensive stock-taking surveys have been conducted, and the figures have been compiled from estimates supplied by the various forest authorities and are subject to revision as more accurate information is secured.

It is still more difficult to divide the stand into merchantable timber and that which is inaccessible or unprofitable, since merchantability depends not only on the location, but on the density of the stand, the demands of the market for certain species or qualities of product, and the regulations governing cutting. Light stands covering large areas may in the aggregate carry very large amounts of timber and still not be exploitable at a profit. For some species, such as aspen and white birch, which comprise three-quarters of the hardwoods, there is very little demand, and, therefore these cannot properly be classed as merchantable, though accessible as far as location is concerned.

Under present conditions it is doubtful whether more than 100,000 million cubic feet of conifers and 15,000 million cubic feet of hardwoods can be considered as merchantable.

1.—Estimate of Total Stand of Timber of Merchantable Size in Canada, by Regions, 1927.

Regions.	Conifers.			Broad-leaved.			Total.		
	Saw material.	Small material.	Total equivalent in standing timber.	Saw material.	Small material.	Total equivalent in standing timber.	Saw material.	Small material.	Total equivalent in standing timber.
	Million feet board measure.	1,000 cords.	Million cubic feet.	Million feet board measure.	1,000 cords.	Million cubic feet.	Million feet board measure.	1,000 cords.	Million cubic feet.
Eastern Provinces	45,193	476,322	65,622	31,845	160,995	25,811	77,038	637,317	91,473
Prairie Provinces	17,484	275,564	36,070	9,338	159,921	20,756	26,822	435,485	56,826
British Columbia	320,000	47,435	75,630	777	1,756	375	320,777	49,191	76,005
Total	**382,677**	**799,321**	**177,362**	**41,960**	**322,672**	**46,942**	**424,637**	**1,121,993**	**224,304**

Section 5.—Forest Administration.

Subsection 1.—Administration of Dominion and Provincial Timber Lands.

In Canada the general policy of both the Dominion Government and the provincial Governments has been to dispose of the timber by means of licenses to cut, rather than to sell timber-land outright. Under this system the State retains the ownership of the land and control of the cutting operations. Revenue is derived in the form of stumpage bonuses (either in lump sums or in payments made as the timber is cut), annual ground rent, and royalty dues collected as and when the wood is removed. Both ground rent and royalty dues may be adjusted at the discretion of the governments so that the public may share in any increase in stumpage values, or, as has happened, reductions may be made in the rates if conditions demand them.

The Maritime Provinces did not adopt this policy to the same extent as did the rest of Canada. In Prince Edward Island all the forest land has been alienated and is in small holdings, chiefly farmers' woodlots. In Nova Scotia 76 p.c. of the forest land is privately owned; nearly half of this is in holdings exceeding 1,000 acres. In New Brunswick nearly 50 p.c. has been sold, and 20 p.c. is in holdings exceeding 1,000 acres. The percentage of privately owned forest land in the other provinces is as follows:—Quebec, 7 p.c.; Ontario, 3·3 p.c.; Manitoba, 11·3 p.c.; Saskatchewan, 10·4 p.c.; Alberta, 15·7 p.c. and British Columbia, 13 p.c.

The Dominion Government administers Crown lands, including timber lands, in the provinces of Manitoba, Saskatchewan and Alberta, in the Railway belt and Peace River block of British Columbia and in the Yukon and Northwest Territories. In all other cases timber lands are administered by the provinces in which they occur. As new regions are explored, their lands are examined and the agricultural land disposed of. Absolute forest land is usually set aside for timber production, and the policy of disposing of the title to lands fit only for the production of timber has been virtually abandoned in every province in Canada. The ownership of forests by towns and communities, so common in Europe, is almost unknown in Canada, although efforts are being made to encourage the establishment and maintenance of forests of this nature.

Dominion Timber Lands.—Dominion timber lands are administered by four different branches of the Department of the Interior at Ottawa. The Forest Service administers the National Forests and provides fire protection on all Dominion forest lands except in the National Parks, the Timber and Grazing Branch deals with timber berths, and the Canadian National Parks Branch administers the Dominion parks, which are primarily national playgrounds and game preserves where the timber is withdrawn from commercial use. The Northwest Territories Branch administers forest land north of the provincial areas. The Department of Indian Affairs administers, in trust for the Indians, the timbered areas within Indian Reserves. The Board of Railway Commissioners for Canada has charge of fire protection along most of the railway lines in Canada.

Forest reserves are primarily intended to supply the surrounding settlements with timber for local use, and to protect the watersheds. The method of disposal of this timber and the conditions under which it can be removed are such that regeneration of the natural forest is as well provided for as possible. The policy of the Government is to extend these forest reserves so that eventually they shall include all non-agricultural lands capable of supporting tree growth, and to provide

for their maintenance in a forested condition by natural regeneration, except where entirely denuded areas demand artificial methods. On all other Dominion timber lands licenses to cut timber, renewable annually, are granted for stated areas. Regulations provide for cutting to a diameter limit and disposal of logging *débris*. The export of raw or unmanufactured timber cut from Dominion Crown lands and provincial Crown lands is prohibited in every province.

Approximately 27,335 square miles of forest lands in the Prairie Provinces are privately owned.

British Columbia.—In the province of British Columbia, the Forest Branch of the Department of Lands has administered timber lands since 1912. All unalienated lands in the province which are examined and found to be better suited to forest than to agricultural production are dedicated to forest production, and all timber lands carrying over a specified quantity of timber are withdrawn from disposal until examined by the Forest Branch. During the last few years, 10,146 square miles have been set aside permanently for forest purposes. The present practice is to sell cutting rights for a stated period by public competition. The royalties are adjusted periodically on the basis of prevailing industrial conditions. About 3,000 square miles of timber land are privately owned.

Ontario.—Forest administration is carried out in Ontario under the Department of Lands and Forests, which is subdivided into four divisions, each under a separate Deputy Minister. The Lands and Forests division controls timber sales and the Forestry division has charge of reforestation, protection, air service, forest surveys and investigations. The Forestry Board, consisting of representatives from forest industries, the University Faculty of Forestry and the Deputy Minister of Forestry, functions in an advisory capacity.

The sale of saw timber is by tender after examination. Conditions cover the removal within a specified period, disposal of *débris*, etc. Pulpwood areas are usually disposed of by individual agreements for longer periods than in the case of saw timber. Manufacture in Canada was made a condition in the disposal of all softwood saw timber in 1897, of all pulpwood in 1900 and of all hardwood in 1924. In some individual pulpwood agreements the licensee must undertake not only to erect a pulp-mill but also a paper-mill within the province, the type of mill being stipulated in the agreement. In this province about 7,972 square miles of forest land have been disposed of outright.

Quebec.—The Forest Service of the Department of Lands and Forests administers the timber lands in Quebec; its powers include classification of land, disposal of timber and regulation of cutting operations. Forest protection has been since 1924 under a separate organization, the Forest Protective Service. Licenses are granted after public competition and are renewable from year to year, subject to changes in royalty by the Government at any time. Grants of land in fee simple, made in some cases under the French *régime* in Quebec, are responsible for the private ownership of about 34,173 square miles of forest land.

New Brunswick.—The Forest Service, under the Department of Lands and Mines, and a special Forestry Advisory Commission, form the forest authority in New Brunswick. The Forestry Advisory Commission, consisting of the Minister of Lands and Mines, the Deputy Minister, the Chief Forester, a lumberman representing the licensees of Crown Lands, and one representing the private timberland

owners, is appointed to advise on matters of policy. At present timber lands are disposed of as in the other provinces, but in the past several grants of forest land were made to railway companies, private concerns and individuals, who now own in fee simple about 10,675 square miles of forest land.

Nova Scotia.—In Nova Scotia the greater part of the forest land, amounting to 12,300 square miles, has passed into private ownership. What remains vested in the Crown is administered by the Chief Forester under the Minister of Lands and Forests. Under the Minister, the Chief Forester has charge of forest protection, surveying and scaling throughout the province.

Subsection 2.—Forest Fire Protection.

The protection of forests from fire is undoubtedly the most urgent and most important part of the work of the different agencies administering forest lands in Canada. In the case of the Dominion Government, this duty falls chiefly on the Forest Service of the Department of the Interior for all Dominion Crown timber lands, whether within forest reserves or not. Certain officers of the various forest authorities are appointed *ex-officio* officers of the Board of Railway Commissioners and are responsible for fire protection along railway lines. These guards co-operate with the railway fire rangers employed by the various railway companies, the compulsory patrol of all lines throughout the country being a Dominion law. Other Dominion legislation regulates the use of fire for clearing and other legitimate purposes and provides for closed seasons during dangerous periods.

Each of the Provincial Governments maintains a fire protection organization which co-operates with owners and licensees for the protection of all timbered areas, the cost being distributed or covered by special taxes on timber lands. An interesting development in this connection in the province of Quebec is the organization of a number of co-operative protective associations among lessees of timber limits. These associations have their own staffs, which co-operate with those of the Board of Railway Commissioners and the Provincial Government. This latter contributes in the way of money grants and also pays for the protection of vacant Crown lands lying within the areas of the association's activities.

The most important single development in forest fire protection in late years has been in the use of aircraft for the detection and suppression of incipient forest fires, constituting a measure of prevention rather than a cure. Where lakes are numerous flying boats can be used both for detection and for the transportation of fire-fighters and their equipment to fires in remote areas. Where safe landing places are few, land machines are used for the detection and inspection of fires only. The aircraft are equipped with wireless and can report the exact location of a fire as soon as it has been detected. These aircraft can be used incidentally for exploring remote areas and mapping them by means of aerial photography.

As a general rule aircraft are used in the more remote districts, while lookout towers connected by telephone lines and equipped with wireless are established in the more settled and more travelled forest areas. While these agencies have to a large extent supplanted the old canoe, horseback and foot patrol for detection of fires, a large ground staff with its equipment stored at strategic points will always be necessary for the fighting of larger fires and the maintenance of systems of communication and transportation and of fire lanes and fire guards in the forest.

The most important improvement in forest fire fighting equipment has been the portable gasolene fire pump. These pumps, which weigh a little over a hundred

pounds, can be carried to a fire by car, canoe, motor boat, automobile, aircraft, pack saddle or back pack. They can deliver efficient water pressure three or four thousand feet from a water supply and when used in relays, at a much greater distance. Smaller hand pumps are also used effectively in many cases.

In addition to these improved measures, legislation has also tended to reduce the fire menace. The establishment of closed seasons for brush burning and seasons during which permits are required for setting out fires and for travel in the forest during dangerous dry periods, have been of enormous value as preventive measures.

None of these measures would be effective without the support of the general public, and in 1900 the Canadian Forestry Association was founded, with its chief object the securing of popular co-operation in reducing the forest fire hazard. This Association now has a membership of 28,000 and an income of $137,000, mostly secured by voluntary private subscription. Fourteen of the Association's paid lecturers tour the country, using special railway lecture cars and motor trucks equipped with self contained motion picture equipment, showing special films taken by the Association. Two high class sporting and outdoor magazines, one in French and one in English, are published monthly by the Association as educational media. Prepared lectures illustrated by slides and films are distributed to volunteer lecturers and other educational work is carried on in schools and at public meetings. The different Dominion and Provincial forest authorities also carry on extensive publicity work and co-operate with the Canadian Forestry Association.

Another interesting development in forest protection has been the establishing of special meteorological stations for the study of the effects of weather conditions on the fire hazard, and the broadcasting of special forecasts of hazardous fire weather.

Subsection 3.—Scientific Forestry.

The practice of forestry in Canada has consisted chiefly in the administration of existing forest areas. What little reforestation or afforestation has been done has been largely in connection with farmers' woodlots, shelter belts and reclamation or soil fixation, although some commercial reforestation has been undertaken by pulp companies. During recent years investigatory or forest research work has assumed considerable importance. The object of this work is to secure an inventory of Canada's timber resources, to ascertain the best methods of securing continuous production of desirable species by natural means and the economic possibilities of establishing forest by artificial means. In addition to sylvicultural research, investigations are being carried on for the purpose of determining the best methods of forest utilization or the converting of standing timber into saleable commodities.

Technical foresters are employed by the Dominion and Provincial Forest Services and by many pulp and lumber companies. In addition to administrative work, these men carry on forest reconnaissance and intensive forest surveys for the purpose of estimating and mapping standing timber and determining conditions affecting growth and reproduction of existing forests. They also direct experimental planting and experimental regulation of commercial logging operations. The Dominion Forest Service employs a special staff for forest investigatory work, and has established permanent experimental forest stations at Petawawa, Ontario, and Grand'Mère, Quebec, and carries on similar work at other points throughout the Dominion. The work is done in co-operation with the provincial services and with pulp and lumber companies, and is also conducted on Dominion forest reserves. The forest products laboratories, established by the Dominion Forest Service at

Ottawa, and in connection with the University of British Columbia, at Vancouver, carry on investigatory work in forest products, covering the strength, durability and other mechanical, physical and chemical qualities of Canadian woods, methods of seasoning, preservation from decay, and chemical utilization in wood-distillation and other industries. A special pulp and paper division of the laboratories is located in Montreal, the recognized centre of the industry, in the Cellulose Institute of the Canadian Pulp and Paper Association. The division is in close co-operation in this connection with the Association and with McGill University. Much credit is due to the forestry departments of some of the pulp companies for pioneering work in forest research.

Education in forestry and allied subjects and opportunities for research are offered by four Canadian universities and by other agencies. The University of Toronto, the University of New Brunswick at Fredericton, and the University of British Columbia at Vancouver, provide four-year courses leading to a professional degree. The School of Forestry and Surveying in connection with Laval University at Quebec provides in the French language a combined course of four years' duration, leading to diplomas in both sciences. The Government of Quebec has established a school in paper-making at Three Rivers in the heart of the paper industry; several agricultural colleges provide short courses in farm forestry, and a school for forest rangers has been established at Berthierville by the Quebec Forest Service.

The practice of forestry by individuals and private concerns is encouraged by the furnishing of expert advice by Dominion and provincial Services and by the distribution of tree-planting material. The Dominion Forest Service maintains two nurseries in Saskatchewan, one at Indian Head and the other at Sutherland, near Saskatoon. Over 7,000,000 trees are distributed annually to farmers and ranchers in the Prairie Provinces for planting woodlots and wind-breaks. If certain conditions are fulfilled, the material and instructions are provided free except for transportation charges.

The province of Ontario provides material under similar conditions, and distributes at least 7,000,000 trees annually from its five nurseries. To encourage the establishment of communal forests by towns and other municipalities, the Provincial Government undertakes to plant free of charge any area purchased by the municipality for this purpose. The Government also assists counties which purchase areas of not less than 1,000 acres of land for forest purposes. As a result of these inducements there are at present scattered throughout the province 50 communal forests owned by municipalities and eight of the larger county forests. Farm land used for forestry purposes, while so used, is exempt from taxation up to 10 p.c. of the total farm area but not exceeding a total of 20 acres.

In Quebec, a forest nursery at Berthierville serves as a demonstration station for the School of Forestry and as a location for the forest ranger school. It provides trees for sale and distribution in the province, comprising seedlings and transplants for forest planting, and larger trees for ornamental purposes. The capacity of the nursery has been raised to 10,000,000 trees. Provision is made by legislation for the creation of communal forests, and there are now 38 of these.

Section 6.—Forest Utilization.

Historical.—The forest has always played a large part in the life of the pioneer in Eastern Canada, providing him with building material and fuel but opposing his agricultural efforts. The material removed in clearing the first fields was usually

more than sufficient for his needs, and in many cases what would now be valuable timber was piled and burned by the early settler. It was not until the resources of a neighbourhood became scanty that a trade in forest products arose. Local trade in lumber began in New France shortly after 1650. The first attempts at forest conservation took the form of setting aside areas of timber for the use of the navy, and the first exports were of shipbuilding material and spars. Sawmills were established along the St. Lawrence before the close of the seventeenth century. While there was no recorded transatlantic trade in forest products other than naval supplies, shipments of lumber and staves were made to the French West Indies during the French *régime*. Shipbuilding became an important local industry and gave rise to considerable forest exploitation.

Transatlantic trade began to develop after the Conquest, stimulated by bounties and tariff privileges granted with the object of reducing England's dependence on Baltic supplies, especially in connection with naval material. This trade, however, did not develop satisfactorily until the beginning of the nineteenth century, when Napoleon succeeded in interfering seriously with imports of wood into England from the Baltic. The export of timber from Canada increased enormously, and the square timber trade in white pine and oak spread from the St. Lawrence and Richelieu valleys to lake Champlain and Upper Canada and especially into the Ottawa valley. This trade reached its height in the 60's and has steadily declined since that date.

Sawmilling on a large scale followed the square timber trade and the establishment of small custom mills followed in the wake of the settler. The building of wooden ships in the St. Lawrence valley and the Maritime Provinces developed hand in hand with the lumber industry, providing a local demand for timber and a means of exporting it overseas. The British preferences were reduced and finally abolished about 1860 and since that date the lumber industry has stood on its own feet unsupported by tariff favours.

The export trade in sawn lumber to the United States developed from 1820 to 1830 and gradually replaced the more wasteful overseas square timber trade, but it was not until after Confederation that the export of sawn lumber by sea exceeded that of square timber.

Encouraged by the free entry of raw materials into the United States, an important trade developed, especially in Ontario, in the exportation of saw logs to be sawn into lumber in American mills. The Provincial Government prohibited the exportation of this material when cut on Crown lands about 1900 and effectively checked this economic loss. Similar legislation has since been passed by the Dominion and the different provincial governments and has been extended to pulpwood and other raw or unmanufactured forest products.

The lumber industry which began in Quebec and New Brunswick and extended into Upper Canada has since moved gradually through "Old" Ontario along the Upper Ottawa and its tributaries, around Georgian bay, into "New" or northern Ontario and through the Lake of the Woods and Rainy River Districts. It is still an important industry in these regions. Lumbering to the north of the prairies where the timber was never particularly large nor abundant has progressed with the settlement of the district, but the production does not usually exceed the local demand. In 1908 British Columbia provided less than a fifth of Canada's lumber production while in 1926 this proportion had increased to over 50 p.c., showing the rapid westward movement of the centre of production. British Columbia has

added several new tree species to the lumber market and at present possesses the heaviest stands and the largest individual trees in Canada.

Remarkable developments in the manufacture of pulp and paper in the twentieth century have caused a second wave of forest exploitation to sweep over Eastern Canada, and have given rise to an industry which has already surpassed the manufacture of lumber and is to-day the most important manufacturing industry in Canada and the source of the greatest single item in our exports next to wheat.

Subsection 1.—Woods Operations.

Differences throughout Canada in forest conditions give rise to differences in logging methods. Generally speaking, throughout Eastern Canada the climate is such that the cutting and hauling of logs can be carried on most economically during the fall and winter months. The trees are felled and the logs hauled to the nearest stream or lake, where they are piled on the ice or sloping banks. The presence of connected systems of lakes and streams makes it possible in most cases to float the logs from the forest to the mill at a minimum cost during the annual spring freshets. The logging industry east of the Rocky mountains is therefore almost entirely seasonal. In many cases lumbermen co-operate in river-driving operations, and improvement companies, financed by the logging operators, build river improvements to facilitate the passage of the floating logs, the logs being finally sorted and delivered to their respective owners. In British Columbia the scarcity of drivable streams and the greater average size of the logs give rise to entirely different logging methods. Logs are assembled by different cable systems operated by donkey engines and are transported to the mills or to water chiefly by logging railways and in some cases by motor trucks. These operations are more or less independent of frost, snow or freshet, and are carried on in most cases throughout the entire year.

In Eastern Canada logging operations are usually carried on by the mill-owners or licensees of timbered lands, often through the medium of contractors, sub-contractors and jobbers. In the better settled parts of the country a considerable quantity of lumber is sawn by custom sawmills or small mills purchasing logs from the farmers. Unmanufactured pulpwood, poles, ties and other forest products have a market value, but saw-logs, being as a rule the property of the mill-owner, are not generally marketed as such in Eastern Canada. In British Columbia logging is carried on more frequently as a separate enterprise by limit-holders, who cut and sell logs on the market. In many cases mill operators are not limit-holders, but buy their entire supply of raw material from logging concerns.

In connection with operations in the woods it should be borne in mind that the forests not only provide the raw material for the sawmills, pulp-mills, wood distillation, charcoal, excelsior and other plants, but that they also provide logs, pulpwood and bolts for export in the unmanufactured state and fuel, poles, railway ties, posts and fence rails, mining timber, piling and other primary products which are finished in the woods ready for use or exportation. There are also a number of minor forest products, such as maple sugar and syrup, balsam gum, resin, cascara, moss and tanbark, which all go to swell the total.

Table 2 gives the total value of the products of woods operations in Canada for the years 1922 to 1926 inclusive. The imports and exports of forest products in the fiscal years ended Mar. 31, 1925-28, are shown in Tables 12 and 13 of the chapter on External Trade.

2.—Review of Total Value of the Products of Woods Operations, by Products, 1922-1926.

Products.	1922.	1923.	1924.	1925.	1926.
	$	$	$	$	$
Logs and bolts sawn	55,066,273	69,352,821	83,141,692	71,854,926	70,982,675
Pulpwood used	40,375,599	43,594,592	44,241,582	48,012,602	54,033,273
Firewood	38,228,702	38,723,272	39,336,771	39,515,657	40,032,804
Pulpwood exported	10,359,762	13,525,004	13,536,058	14,168,935	14,067,030
Hewn railway ties[1]	13,215,986	13,228,547	14,251,450	14,491,557	6,792,087
Logs exported	3,270,575	5,095,168	4,855,298	4,778,108	4,809,257
Square timber exported	1,492,344	4,037,030	3,317,225	2,643,543	2,643,543
Telegraph and telephone poles	1,707,378	2,998,852	3,621,415	3,802,036	3,828,193
Round mining timber	1,721,025	1,615,667	1,296,710	1,249,021	1,566,938
Fence posts	1,354,268	1,425,478	1,414,363	1,418,961	1,318,291
Wood for distillation	479,299	540,541	562,525	463,616	462,818
Fence rails	450,133	444,189	452,377	454,910	440,097
Miscellaneous exports	2,278,674	1,723,683	2,281,013	2,674,693	2,493,365
Miscellaneous products	850,078	1,156,487	838,231	3,747,996	965,957
Total Value	**170,850,096**	**197,459,331**	**213,146,710**	**209,276,561**	**204,436,328**

[1] The figures for 1922 to 1925 include sawn ties; which are included under "logs and bolts sawn" in the 1926 estimate.

It has been estimated that operations in the woods in Canada in 1926 involved the investment of $150,000,000 in logging equipment, gave employment for a part of the year to 81,000 men and distributed over $72,000,000 in wages and salaries. In estimating the annual drain on our forest resources, certain converting factors have been used. Each of these factors represents in cubic feet the quantity of standing timber that must be cut in the forest to produce one unit of the material in question, based on the total cubic contents of the tree. By the use of these factors it has been estimated that the total drain on our forest resources in 1926 due to consumption for use amounted to 2,838,105,611 cubic feet. To this must be added the volume of material destroyed by fire, insects and fungi, which would bring the total depletion to an average of 4,400,000,000 cubic feet per annum. Table 3 gives the reported or estimated production of primary forest products, by kinds, together with the respective converting factors, the equivalent in standing timber and the estimated value in each case for 1926.

3.—Products of Woods Operations, in Canada, by Chief Products, 1926.

Products.	Quantity reported or estimated.	Converting factor.	Equivalent volume in standing timber.	Total value.
			Cubic feet.	$
Logs and bolts sawn[1] M ft. b.m.	4,424,543	219	968,974,917	70,982,675
Pulpwood used cords	4,229,567	117	494,859,339	54,033,273
Firewood "	9,279,010	95	881,505,950	40,032,804
Pulpwood exported "	1,391,738	117	162,833,346	14,067,030
Hewn railway ties number	9,803,214	12	117,638,568	6,792,087
Logs exported M ft. b.m.	322,527	219	70,633,413	4,809,257
Square timber exported "	116,986	219	25,619,934	2,643,543
Telegraph and telephone poles number	895,726	13	11,644,438	3,828,193
Round mining timber M lin. ft.	63,251	328	20,746,328	1,566,938
Fence posts number	13,494,929	2	26,989,858	1,318,291
Wood for distillation cords	48,254	123	5,935,242	462,818
Fence rails number	5,147,932	2	10,295,864	440,097
Miscellaneous exports cords	249,055	117	29,139,435	2,493,365
Miscellaneous products "	96,487	117	11,288,979	965,957
Total	–	–	**2,838,105,611**	**204,436,328**

[1] Includes sawn ties.

Subsection 2.—The Pulp and Paper Industry.

The manufacture of pulp and paper is a comparatively recent development in Canadian industry. Paper was first manufactured in Canada about a hundred years ago, but prior to 1860 no wood pulp was used or produced. Rags, straw, esparto grass, cotton waste and other substances were the raw materials used. The first paper-mill was established at St. Andrews in Quebec (then Lower Canada) in 1803 by a party of Americans who obtained concessions from the seigneurs. In 1825, at Crook's Hollow, was erected the first paper-mill in what was then Upper Canada.

What is claimed to be the first wood pulp mill in Canada was erected by Angus Logan and Company at Windsor Mills, Quebec, about 1870. The Riordons were among the first to manufacture groundwood pulp, and in 1887 Charles Riordon brought the sulphite process from Austria, and installed at Merritton a sulphite mill which is still in existence. In the census of 1871 no pulp-mills are mentioned, but in 1881 five mills were in operation, with a total capital of $92,000, 68 employees and an output valued at $63,000. In 1891 there were 24, and in 1901, 25 mills. Since that date the advance in this industry has been still more rapid. At the end of 1927, there were in operation in Canada 42 pulp-mills, 42 combined pulp and paper-mills and 30 mills making paper only, and since then the number has increased. This development is due chiefly to the existence in Canada of abundant water powers adjacent to extensive forest resources of pulpwood species. Summary statistics for the combined pulp and paper industry are given on p. 309.

The industry in Canada includes three forms of industrial activity, the operations in the woods, with pulpwood as a product, the manufacture of pulp and the manufacture of paper. These three stages cannot be treated as entirely distinct nor can they be separated from the different stages of the lumber industry. Some of the important pulp companies operate sawmills to utilize the larger timber on their limits to the best advantage, and many lumber manufacturers divert a proportion of their spruce and balsam logs to pulp-mills. So far as operations in the woods are concerned, it is often impossible to state whether the timber being cut will eventually be made into lumber or into pulpwood.

On account of legislation already referred to, pulpwood cut on Crown lands must in every province be manufactured into pulp in Canadian pulp-mills. The pulpwood which is exported to the United States is cut from private lands. Table 4 shows the annual production of this commodity from 1908 to 1927, together with the quantities used by Canadian pulp-mills and the quantities exported.

4.—Production, Consumption and Export of Pulpwood, calendar years 1908-1927.

Years.	Total Production of Pulpwood.			Used in Canadian Pulp-mills.		Exported Unmanufactured[1].	
	Quantity.	Total value.	Average value per cord.	Quantity.	Per cent of total production.	Quantity.	Per cent of total production.
	cords.	$	$	cords.	p.c.	cords.	p.c.
1908	1,325,085	7,732,055	5·84	482,777	36·4	842,308	63·6
1909	1,557,753	9,316,610	5·98	622,129	39·9	935,624	60·1
1910	1,541,628	9,795,196	6·35	598,487	38·8	943,141	61·2
1911	1,520,227	9,678,616	6·37	672,288	44·2	847,939	55·8
1912	1,846,910	11,911,415	6·46	866,042	46·8	980,868	53·2
1913	2,144,064	14,313,939	6·67	1,109,034	51·7	1,035,030	48·3
1914	2,196,884	14,770,358	6·72	1,224,376	55·7	972,508	44·3
1915	2,355,550	15,580,330	6·61	1,405,836	59·7	949,714	40·3
1916	2,833,119	19,971,127	7·05	1,764,912	62·3	1,068,207	37·7
1917	3,122,179	26,739,905	8·56	2,104,334	67·4	1,017,845	32·6
1918	3,560,280	37,886,259	10·64	2,210,744	62·1	1,349,536	37·9
1919	3,498,981	41,941,267	11·99	2,428,706	69·4	1,070,275	30·6
1920	4,024,826	61,183,060	15·22	2,777,422	69·0	1,247,404	31·0
1921	3,273,131	52,900,872	16·16	2,180,578	66·6	1,092,553	33·4
1922	3,923,940	50,735,361	12·93	2,912,608	74·2	1,011,332	25·8
1923	4,654,663	57,119,596	12·27	3,270,433	70·3	1,384,230	29·7
1924	4,647,201	57,777,640	12·43	3,316,951	71·4	1,330,250	28·6
1925	5,092,461	62,181,537	12·23	3,668,959	72·0	1,423,502	28·0
1926	5,621,305	68,100,303	12·14	4,229,567	75·2	1,391,738	24·8
1927	5,929,456	70,284,895	11·85	4,387,687	74·0	1,541,769	26·0

[1]Exports of pulpwood in the calendar year 1928 were 1,532,266 cords.

The exportation of raw pulpwood, as shown in the accompanying table, has increased but little since 1912, while the quantity consumed in Canadian pulp-mills has increased more than fivefold during the same period. In 1908, almost two-thirds of the pulpwood cut in Canada was exported in the raw or unmanufactured form. In 1927, with an increase of almost 350 p.c. in total production, the proportion exported has fallen to about one-fourth.

The manufacture of pulp forms the second stage in this industry. This is carried on by mills producing pulp alone and also by paper manufacturers operating pulp-mills in conjunction with paper-mills for the purpose of providing their own raw material. Such mills usually manufacture a surplus of pulp for sale in Canada or for export.

The supply of rags for paper making is distinctly limited and the material too expensive for the manufacture of cheap paper. Early paper makers experimented with fibres from the stems, leaves and other parts of numerous annual plants, but the small proportion of paper-making material recoverable from such sources led to experiments in the use of wood. Different species were tried, and finally spruce and balsam fir were found to be the most suitable for the production of all but the best classes of paper.

The preliminary preparation of pulpwood is frequently carried on at the pulp-mill, but there are in Canada a number of "cutting-up" and "rossing" mills operating on an independent basis, chiefly for the purpose of saving freight on material cut at a distance from the mill or on material intended for exportation. Pulp logs are measured in board feet but the shorter material is measured by the cord (4′ by 4′ by 8′ of piled material), which is approximately equivalent to 500 feet board measure or to 90 cubic feet of solid wood.

There are in Canada four methods of preparing wood pulp, one of which is mechanical and three chemical. In the mechanical method, green coniferous woods are preferred; spruce forms over 80 p.c. of the total, with balsam fir, hemlock and

jack pine. The barked and cleaned wood is held by hydraulic pressure against the surface of a revolving grindstone, the sticks lying with their length parallel to the width of the stone. The stone is constantly washed by water, which carries away the pulp in suspension. Mechanically prepared pulp or "groundwood" is used only for the cheaper grades of paper and board which are required only for a comparatively short time. It contains all the wood substance, a large proportion of which is not durable. Mixed with chemical pulp, it is used for news, wall, cheap book, manila, tissue, wrapping, bag and building papers, and for box boards, container boards and wall boards.

There are three methods of producing chemical fibre in use in Canada — the sulphite, sulphate (or kraft) and the soda processes, so-called because of the chemicals used in each case to dissolve out the non-fibrous or non-cellulose components of wood substance. Cellulose, which forms about 50 p.c. of wood substance, is the ideal paper-making material. It is a singularly inert substance, largely unaffected by ordinary chemical agents, atmospheric conditions, bacteria and fungi. High grade paper, being almost pure cellulose, will remain in perfect condition for centuries. Not only do the chemicals used separate out the cellulose, but they remove the fats and resins so troublesome in paper-making, and break down the substance which holds the cellulose fibres together, so that they can be later felted together into a strong sheet of paper.

The previously barked and cleaned pulpwood is chipped in a machine which reduces the wood to particles about an inch long and a quarter of an inch thick, or smaller. These chips are screened, crushed and fed into digesters, where they are cooked in the presence of the various chemicals referred to. The cooked chips are then "blown" into pits below the digesters and washed in preparation for screening.

The sulphite process, which is the most important in use in Canada, depends on the action of a bisulphite liquor (a comparatively weak acid solution of a calcium and magnesium bisulphite) on the non-cellulose wood component.

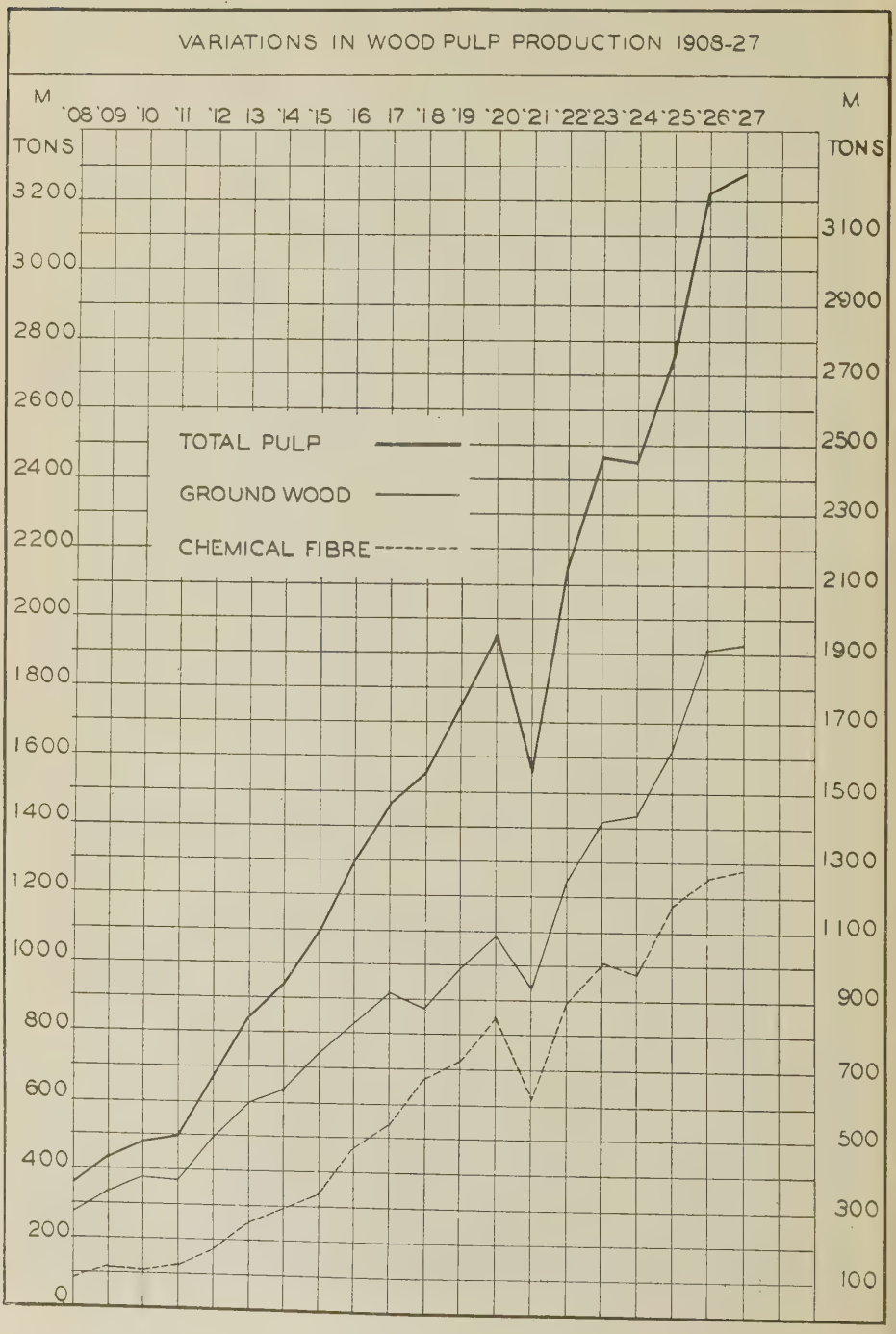
The woods used in this process in Canada are all coniferous. Spruce forms 72 p.c., balsam 20 p.c. and hemlock 8 p.c.

Sulphite fibre is used in the manufacture of newsprint paper, in which it forms about 20 p.c. of the pulp used, adding strength to the remaining 80 p.c. of groundwood pulp. It is used for the better classes of white paper and boards, either pure or in mixture with other fibres.

The soda process is the oldest chemical process, and depends on the action of an alkaline solvent, caustic soda, on the non-fibrous components.

The resultant fibre is used in the manufacture of the best class of book, magazine and writing papers, as a filler mixed with stronger pulp. The result is a paper which lacks strength but can be readily finished to a good surface.

The manufacture of sulphate or kraft pulp is a comparatively recent modification of the soda process. It was first used in America by the Brompton Pulp and Paper Co., at East Angus, Quebec, in 1907. The process was first introduced with the intention of reducing the manufacturing cost of soda pulp by substituting salt cake (sodium sulphate) for the more expensive soda ash (sodium carbonate). Subsequent developments showed that, by an adaptation of this process, the superior strength of coniferous wood fibre could be taken advantage of, and at the present time the woods used are almost exclusively coniferous. Spruce heads the list with about 63 p.c. of the total, followed by jack pine with about 20 p.c., balsam with about 12 p.c., and other conifers in smaller proportions. The fibres so obtained are


VARIATIONS IN WOOD PULP PRODUCTION 1908-27
M TONS
'08 '09 '10 '11 '12 13 '14 '15 '16 17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27
3200
3000
2800
2600
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
TOTAL PULP
GROUND WOOD
CHEMICAL FIBRE
M TONS
3100
2900
2700
2500
2300
2100
1900
1700
1500
1300
1100
900
700
500
300
100

long, flexible and very strong, and are used in the manufacture of so-called kraft papers used for wrapping, bags, etc.

Pulp Production.—Table 5 shows the total production of pulp in Canada from 1908 to 1927 inclusive, together with the production of groundwood pulp and the production of fibre by the three chemical processes described. Statistics of values are not available from 1908 to 1916.

5.—Pulp Production, Mechanical and Chemical, calendar years 1908-1927.

Years.	Total Production.[1]		Mechanical Pulp.		Chemical Fibre.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	$	Tons.	$	Tons.	$
1908	363,079	–	278,570	–	84,509	–
1909	445,408	–	325,609	–	119,799	–
1910	474,604	–	370,195	–	104,409	–
1911	496,833	–	362,321	–	134,512	–
1912	682,632	–	499,226	–	183,406	–
1913	854,624	–	600,216	–	254,408	–
1914	934,700	–	644,924	–	289,776	–
1915	1,074,805	–	743,776	–	331,029	–
1916	1,295,084	–	827,258	–	468,826	–
1917	1,464,308	65,515,335	923,731	25,918,811	540,423	38,374,191
1918	1,557,193	64,356,173	879,510	19,112,727	677,683	45,243,446
1919	1,716,089	73,320,278	990,902	23,316,828	725,187	50,003,450
1920	1,960,102	141,552,862	1,090,114	49,890,337	848,528	90,053,999
1921	1,549,082	78,338,278	931,560	32,313,848	612,467	45,929,513
1922	2,150,251	84,947,598	1,241,185	31,079,429	897,533	53,615,692
1923	2,475,904	99,073,203	1,419,547	37,587,379	1,012,092	60,674,518
1924	2,465,011	90,323,972	1,427,782	36,165,901	986,242	53,313,823
1925	2,772,507	100,216,383	1,621,917	39,130,117	1,084,992	59,969,673
1926	3,229,791	115,154,199	1,901,268	44,800,257	1,251,178	69,220,427
1927	3,278,978	114,442,550	1,922,124	44,174,811	1,278,572	69,169,002

[1] These totals include some unspecified pulp and screenings.

The steady growth of this industry up to 1920, when 1,960,102 tons of pulp were produced, will be seen from the above figures. There was a drop in production in 1921, but production in 1922 more than overtook the previous year's drop. Since then, with the exception of 1924, each year has shown consistent growth in the annual production, the year 1927 creating a record for the industry, with a production of 3,278,978 tons.

During 1927 there were 42 mills manufacturing pulp only and 42 combined pulp and paper-mills. These 84 establishments turned out 3,278,978 tons of pulp valued at $114,442,550, as compared with 3,229,791 tons of pulp, valued at $115,154,199, in 1926. Of the 1927 total for pulp, 2,262,542 tons, valued at $63,558,345, were made in the combined pulp and paper-mills for their own use in manufacturing paper. Of the remainder, 114,712 tons, valued at $5,925,550, were made for sale in Canada, while 901,724 tons, valued at $44,958,655, were made for export. As in the case of pulpwood, a part of the product at this stage of the industry provides raw material for the later stages, while the remainder has a definite market value as such.

Well over half the production in 1927 was groundwood pulp and about a quarter unbleached sulphite fibre, these two being the principal components of newsprint paper. Bleached sulphite made up 9 p.c. and sulphate and soda fibre 8 p.c. The remainder was screenings, for which a considerable market has developed in recent years in connection with the manufacture of fibre boards.

Quebec produced over 53 p.c. of the pulp in 1927, with 30 p.c. from Ontario, 10 p.c. from British Columbia and 6 p.c. from the Maritime Provinces.

Pulp Exportation.—The following table gives the quantities of pulp exported by the principal pulp-producing countries of the world in 1927. Figures for 1913, the year immediately preceding the war, and for 1926 are shown for comparison. Figures of the exports of wood pulp from Canada in the fiscal years ended Mar. 31, 1925-28, will be found in Table 12 of the chapter on External Trade. In the calendar year 1928 the exports of wood pulp from Canada were 17,276,019 cwt.

6.—Exports of Wood Pulp from Principal Wood Pulp-producing Countries of the World.

Countries.	Years ended Dec. 31—				
	1913.	1926.	1927.		
				Proportion 1927 of—	
	Total Wood Pulp.	Total Wood Pulp.	Total Wood Pulp.	Chemical.	Mechanical.
	lb.	lb.	lb.	lb.	lb.
Sweden	2,224,626,000	3,311,848,000	3,723,770,000	2,709,237,000	1,014,533,000
Canada	596,339,000	2,011,558,000	1,758,308,000	1,224,082,000	534,226,000
Norway	1,558,049,000	1,596,478,000	1,615,402,000	520,080,000	1,095,322,000
Finland	–	1,007,711,000	1,171,052,000	841,134,000	329,918,000
Germany	412,083,000	533,591,000	427,266,000	417,994,000	9,272,000
Austria	225,428,000	256,363,000	245,945,000	189,417,000	56,528,000
Czechoslovakia	–	171,275,000	203,711,000	203,568,000	143,000
United States	39,552,000	68,450,000	65,008,000	59,865,000	5,143,000
Switzerland	14,655,000	23,375,000	26,285,000	23,376,000	2,909,000
Poland	–	32,354,000	19,386,000	19,345,000	41,000
Newfoundland	115,595,000	24,969,000	8,263,000	–	8,263,000
Total Principal Countries	–	**9,037,972,000**	**9,264,396,000**	**6,298,698,000**	**3,056,298,000**

The total exports of the eleven principal pulp-exporting countries of the world in 1927 were 9,264,396,000 lb. or 4,632,198 short tons, of which Canada contributed about 19 p.c. While the exports of Sweden, the leading exporter, have increased over those of 1913 by only about two-thirds and are now decreasing, Canada's exports during the same period have almost tripled and are still increasing, in spite of the increasing proportion of our total pulp production which is being further manufactured into paper in Canadian mills.

Paper Production.—The paper-making stage of the industry involves the consumption of wood pulp and other paper stock in the manufacture of paper and other pulp products. Accurate annual statistics for this part of the industry are only available for the years 1917 to 1927 inclusive. These are given in Table 7.

During 1927 there were 42 combined pulp and paper-mills and 30 mills making paper only. These 72 establishments produced 2,468,691 tons of paper, together with certain miscellaneous pulp products, with a total value of $168,445,548, as compared to 2,266,143 tons, valued at $158,277,078, in 1926. Newsprint paper forms about 80 p.c. of the annual paper production in Canada. In 1927, the production of newsprint paper was 2,082,830 tons, valued at $132,286,729, making Canada the largest producer of newsprint in the world. Provisional figures for 1928 show 2,382,011 tons.

7.—Summary of Paper Production in Canada, calendar years 1917-1927.

Years.	Newsprint Paper.		Book and Writing Paper.		Wrapping Paper.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	$	Tons.	$	Tons.	$
1917	689,847	38,868,084	48,141	9,310,138	50,360	646,750
1918	734,783	46,230,814	48,150	10,732,807	61,180	7,341,372
1919	794,567	54,427,879	58,228	12,571,000	59,697	7,979,418
1920	875,696	80,865,271	73,196	21,868,807	77,292	12,161,303
1921	805,114	78,784,598	53,530	12,550,520	52,898	6,634,211
1922	1,081,364	75,971,327	64,808	12,560,504	81,793	8,219,841
1923	1,251,541	93,213,340	76,789	13,582,135	84,912	7,666,174
1924	1,388,081	100,276,903	67,934	12,605,623	89,441	8,027,918
1925	1,536,523	106,268,641	74,724	13,145,407	91,417	8,130,102
1926	1,889,208	121,064,946	80,403	14,765,725	97,057	8,552,400
1927	2,082,830	132,286,729	75,072	12,916,469	102,707	9,607,828

Years.	Boards.		Other Paper Products.		Total Paper.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	$	Tons.	$	Tons.	$
1917	54,080	3,543,164	11,261	1,382,205	853,689	58,750,341
1918	87,749	5,551,409	35,862	3,267,142	967,724	73,123,544
1919	137,678	8,892,046	40,055	3,882,500	1,090,235	87,752,843
1920	158,041	12,904,662	30,726	4,222,724	1,214,951	132,022,767
1921	89,120	6,225,948	18,285	2,358,658	1,018,947	106,553,935
1922	113,200	7,000,081	25,650	2,508,325	1,366,815	106,260,078
1923	130,582	8,480,233	45,479	5,042,488	1,589,303	127,984,370
1924	135,252	8,228,760	38,033	4,256,469	1,718,741	133,395,673
1925	144,646	8,378,621	37,395	4,757,406	1,884,705	140,680,177
1926	155,469	8,825,804	44,006	5,068,203	2,266,143	158,277,078
1927	161,497	8,985,788	46,585	4,433,926	2,468,691	168,445,548

Newsprint made up over 84 p.c. of the total paper production in 1927, with 6 p.c. of paper boards, 4 p.c. of wrapping paper, 3 p.c. of book and writing paper and about 2 p.c. of other miscellaneous papers.

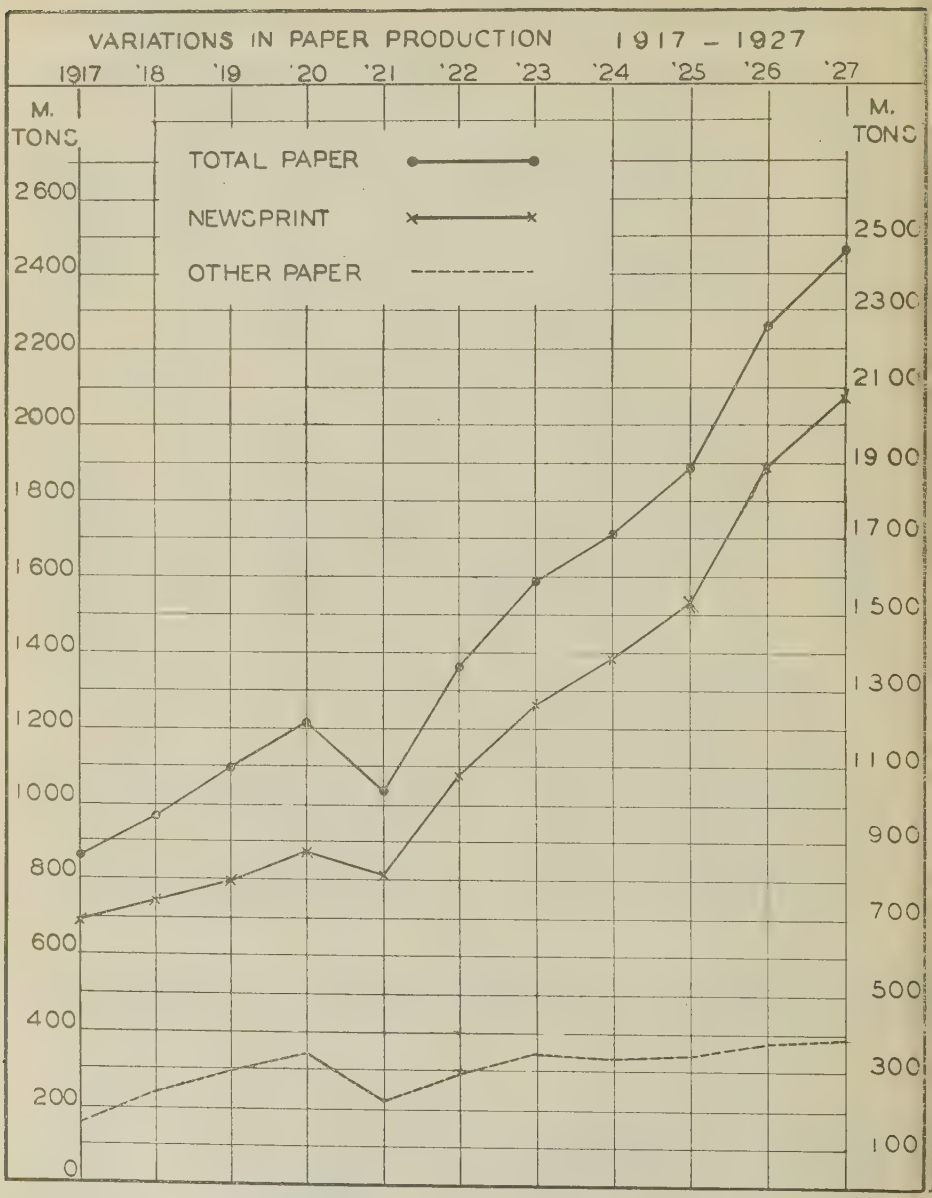
Quebec produced over half the total and Ontario about a third, with the remainder coming from British Columbia, New Brunswick, and Manitoba, the latter province being a new entrant to the field of paper production in 1927.

World Production of Newsprint.—The world's production of newsprint in 1927 has been estimated at 6,420,000 tons, of which North America supplied 58 p.c. and Canada alone 33 p.c. The estimated production in 21 leading countries was as follows:—

8.—Estimated Production of Newsprint Paper in 21 Leading Countries, 1927.

Country.	Production.	Country.	Production.	Country.	Production.
	tons.		tons.		tons.
Canada[1]	2,083,000	United States	1,486,000	Great Britain	720,000
Germany	565,000	Sweden	239,000	Japan	246,000
Newfoundland	203,000	Finland	200,000	Norway	192,000
France	121,000	Netherlands	77,000	Italy	42,000
Belgium	50,000	Austria	55,000	Czechoslovakia	45,000
Spain	25,000	Estonia	21,000	Denmark	16,000
Poland	17,000	Mexico	14,000	Latvia	3,000
				Total	**6,420,000**

[1]Production of newsprint paper in Canada in 1928 is provisionally given as 2,382,011 tons.


VARIATIONS IN PAPER PRODUCTION 1917 – 1927
1917 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27
M. TONS
M. TONS
TOTAL PAPER
NEWSPRINT
OTHER PAPER
2600
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
2500
2300
2100
1900
1700
1500
1300
1100
900
700
500
300
100

Exportation of Newsprint Paper.—In the fiscal year 1908, exports of printing paper were for the first time separately recorded, and valued at $2,833,535. In the fiscal year 1913, when quantities were first shown, Canada exported 146,791 short tons valued at $5,692,126. In 1927 our exports of newsprint amounted to 1,881,865 tons valued at $123,222,094, and ranked second only to wheat among the exports of the Dominion. For exports of newsprint and other paper in the fiscal years ended Mar. 31, 1925-28, see Table 12 of the chapter on External Trade.

As early as 1913 Canada led the world in the exportation of newsprint, and since that date her exports have increased over sevenfold in quantity, while those of Germany, her nearest competitor, have less than tripled. The exports of the United States and of Great Britain have decreased in quantity during the period. The following table shows the exportation of newsprint from the 13 principal exporting countries in 1913, 1926 and 1927, amounting in the aggregate in 1927 to 6,220,947,000 lb. or 3,110,473 short tons, of which Canada contributed 60·5 p.c. or more than all the other 12 countries combined. Canada's exports of newsprint paper undoubtedly exceed those of the rest of the world, reaching in the calendar year 1928 the record figure of 4,413,175,400 lb.

9.—Exports of Newsprint Paper from Principal Paper-producing Countries of the World, 1913, 1926 and 1927.

Rank 1927.	Country.	Years ended Dec. 31—		
		1913.	1926.	1927.
		lb.	lb.	lb.
1.	Canada	513,322,000	3,463,972,000	3,763,731,000
2.	Germany	151,522,000	390,340,000	440,900,000
3.	Newfoundland	99,510,000	238,076,000	383,515,000
4.	Norway	217,014,000	305,163,000	380,117,000
5.	Sweden	135,876,000	383,583,000	378,507,000
6.	Finland	–	317,162,000	342,603,000
7.	United Kingdom	210,305,000	213,612,000	196,294,000
8.	Austria	29,711,000	103,576,000	112,590,000
9.	Netherlands	–	71,385,000	73,325,000
10.	Japan	6,540,000	59,184,000	63,822,000
11.	Czechoslovakia	–	37,924,000	38,859,000
12.	United States	86,602,000	38,518,000	24,657,000
13.	Switzerland	24,000	19,969,000	22,027,000
	Total Principal Countries	–	**5,642,464,000**	**6,220,947,000**

Statistics of the Combined Pulp and Paper Industries.—While the manufacture of pulp and that of paper are properly two industries, the existence of combined pulp and paper mills makes it impossible to separate many of their statistics. Considering the manufacturing part of the industry as a whole, there were altogether 114 mills in operation in 1927, as compared with 115 in 1926. The capital invested in 1927 amounted to $579,853,552, the employees numbered 32,876 and their salaries and wages amounted to $45,674,293. If we disregard the pulp made "for own use" in the combined pulp and paper mills, the total value of the raw materials used in the industry as a whole amounts to $84,813,080 and the gross value of production to $219,329,753. The difference between these two or the net value of production represents the value added by manufacture and amounted in 1927 to $134,516,673. Pulp and paper is now the most important manufacturing industry in Canada, foremost in wage and salary distribution since 1922, when it passed the sawmills. It has been the leading industry in gross value of production since 1925, when it replaced the flour mills, and also first in net value of production since 1920, when it outstripped the sawmills in this respect. Only

the manufacturing stages of the industry are considered in these comparisons, no allowance being made for the capital invested, men employed, wages paid nor primary products sold in connection with the woods operations which form such an important part of the industry as a whole but cannot be separated from woods operations carried on in connection with sawmills and other industries. If the $15,702,705 worth of exported pulpwood be taken into consideration, the gross total contribution of the pulp and paper industry toward a favourable trade balance for Canada in 1927 amounted to $179,459,362, representing the difference between exports and imports of pulpwood, pulp, paper and paper products.

The United States market absorbs annually all of Canada's pulpwood exports and over 87 p.c. of her pulp and paper shipments, and the remaining portion goes to the United Kingdom and other widely distributed overseas markets. Forty-one p.c. of the paper consumed in the United States is either of Canadian manufacture or is made from wood or wood pulp imported from Canada.

Subsection 3.—The Lumber Industry.[1]

The manufacture of lumber, lath, shingles and other products of the sawmill is the second most important industry in Canada depending on the forest for its raw materials. Annual statistics covering this and other forest industries were collected and published by the Forest Service of the Department of the Interior from 1908 to 1916. Since that date the work has been carried on by the Dominion Bureau of Statistics, in co-operation with the Forest Service.

The production of sawn lumber in Canada in 1920 reached a total of over four billion feet, board measure, the highest cut recorded since 1912. This was followed in 1921, however, by a period of depression which was general throughout all fields of industrial activity. The production of lumber in 1921 decreased by over a third and the average value by over $10 a thousand feet. Since that year there have been annual increases in cut for Canada as a whole. The tendency toward a decrease in production in Eastern Canada has been more than made up by the increased cut each year in British Columbia, which now produces over half the total. Table **10** gives the production of lumber, lath and shingles in each year from 1908 to 1926.

10.—Lumber, Lath and Shingle Production in Canada, for the calendar years 1908-1926.

Years.	Lumber cut.		Shingles cut.		Lath cut.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	M ft. B.M.	$	M	$	M	$
1908	3,347,126	54,238,036	1,499,396	3,101,996	671,562	1,487,125
1909	3,814,942	62,819,477	1,988,753	3,701,182	822,124	1,979,034
1910	4,451,652	70,609,233	1,976,640	3,557,211	851,953	1,943,544
1911	4,918,202	75,830,954	1,838,474	3,512,078	965,235	2,212,226
1912	4,389,723	69,475,784	1,578,343	3,175,319	899,016	2,064,622
1913	3,816,642	65,796,438	1,485,279	3,064,641	739,678	1,783,283
1914	3,946,254	60,363,369	1,843,554	3,688,746	625,010	1,585,484
1915	3,842,676	61,919,806	3,089,470	5,734,852	793,226	2,040,819
1916	3,490,550	58,365,349	2,897,562	5,962,933	665,588	1,743,940
1917	4,151,703	83,655,097	3,020,956	8,431,215	616,949	1,828,018
1918	3,886,631	103,700,620	2,662,521	8,184,448	438,100	1,369,616
1919	3,819,750	122,030,653	2,915,309	13,525,625	520,203	2,157,758
1920	4,298,804	168,171,987	2,855,706	14,695,159	762,031	5,248,879
1921	2,869,307	82,448,585	2,986,580	10,727,096	804,449	4,188,121
1922	3,138,598	84,554,172	2,506,956	10,397,080	1,031,420	5,690,328
1923	3,728,445	108,290,542	2,718,650	9,617,114	1,153,735	6,324,747
1924	3,878,942	104,444,622	3,129,501	10,406,293	1,165,819	5,975,253
1925	3,888,920	99,725,519	3,156,261	11,154,773	1,292,963	6,415,927
1926	4,185,140	101,071,260	3,299,397	10,521,723	1,378,366	6,527,060

[1] An article on "The History of the Canadian Lumber Trade", by A. R. M. Lower, M.A., appears at pp. 318-323 of the 1925 edition of the Canada Year Book.

The total number of sawmills, tie, shingle, lath, veneer, stave, heading and hoop mills and mills for the cutting-up and barking or rossing of pulpwood operating in 1926 was 2,780, as compared with 2,700 in 1925. The capital invested in these mills in 1926 was $175,186,704, the employees numbered 35,078 and their wages and salaries amounted to $34,925,391. The logs, bolts and other raw materials of the industry were valued at $78,921,416 and the gross value of production was $135,182,592. The net production or the value added by manufacture in 1926 was $56,261,176.

The lumber industry is the fourth most important manufacturing industry in Canada in gross value of products, being exceeded in this respect by the pulp and paper industry, flour-milling and slaughtering and meat-packing. It ranks first in total number of employees, second in wage and salary distribution and net value of production, and third in value of capital invested.

The production of sawn lumber increased in quantity from 1925 to 1926 by 7·6 p.c., shingle production by 4·5 and lath production by 6·6 p.c. The cutting-up and barking or "rossing" of pulpwood increased by 16·6 p.c. Other increases were reported in the production of box shooks, mill waste for fuel, pickets and poles and decreases in sawn ties, veneer, staves, heading and spool wood. The total gross value of production increased from $134,413,845 in 1925 to $135,182,592 in 1926.

British Columbia comes first in total production, contributing over half the total cut of lumber and over 86 p.c. of the shingles. Ontario comes second, Quebec third and New Brunswick fourth. Douglas fir was the most important kind of lumber sawn, being produced almost entirely in British Columbia. Spruce is sawn in every province and comes second, with white pine, hemlock and cedar next in order of importance. Cedar is the most important shingle wood sawn. The conifers form about 95 p.c. of the total cut of all kinds of wood in this industry, with only 5 p.c. of the deciduous-leaved trees or hardwoods.

Lumber Exportation.—The square timber trade reached its maximum development in the sixties, declined gradually and has now almost entirely disappeared. With its decline came the increased exportation of deals and other sawn lumber, first to Great Britain and later to the United States. Our trade with this latter country has been from the first largely confined to planks, boards and dimension stock. During the American Civil War our exports of forest products of all kinds to the United States for the first time exceeded those to Great Britain, but in late years this has become invariable. The total quantity of sawn lumber exported from Canada has changed little in the last 25 years, averaging about two billion feet board measure per annum. The exports in 1926 amounted to 2,142,576,000 feet board measure, valued at $62,247,188, of which the United States took 83 p.c. and Great Britain about 8 p.c. The exports of lumber, lath and shingles all declined in 1926 as compared with 1925.

Subsection 4.—Summary of Primary Forest Production.

For the purpose of comparing primary industries such as agriculture, fishing, forestry and mining, forestry production is here understood to consist of the total value of the products of woods operations, together with the net value of production in sawmills and pulp-mills. Forestry production, under this system of classification, amounted to $312,844,584 in 1926 or about 15 p.c. of the total primary production for the Dominion, which was estimated at $2,089,529,109. Forestry production therefore, stood in second place in this respect, being exceeded by agriculture with 65 p.c. and followed by mining, with 11 p.c.

Subsection 5.—Other Forest Industries.

Sawmills and pulp-mills draw their supplies of raw material direct from the forest in the form of logs and pulpwood, and produce sawn lumber, other sawmill products and pulp and paper. There are also a number of important industries which use these products as raw material for further manufacture. Some of them produce commodities made almost entirely of wood, wood pulp or paper, others manufacture articles in which wood is the most important component, and others produce articles in which wood is necessary but forms only a small proportion of the value. There are, in addition, a number of industries which use wood indirectly in the manufacture of articles which do not contain wood as a component part. The first class includes the manufacture of paper, sash, doors and other millwork and planing-mill products, boxes, baskets, cooperage and other containers, canoes, boats and small vessels, kitchen, bakers' and dairy woodenware, wooden pumps, piping, tanks and silos, spools, handles, dowels and turnery. The second class includes the manufacture of furniture, vehicles and vehicle supplies, coffins and caskets, etc., and the use of paper in printing and the manufacture of boxes, bags, stationery and paper goods.

The third class, where wood has a secondary importance, includes the manufacture of agricultural implements, railway rolling stock, musical instruments, brooms and brushes, etc.

The fourth class could be said to include practically every form of industrial activity, as few, if any, of these are entirely independent of the use of wood, directly or indirectly.

Subsection 6.—Summary of Forest Utilization.

A classification based on the chief component material in the products of each manufacturing establishment is now largely used in comparing manufacturing industries and for external trade classification. Under this system most of the forest industries fall in the wood and paper group. In 1926 the gross value of production for all classes of manufactured products amounted to $3,247,803,438, of which total the wood and paper group contributed $600,064,661 or about 18 p.c. It was exceeded in this respect by the vegetable products with 20 p.c. and followed by the iron and steel group with 16 p.c. of the total. Of the nine groups of industries into which the industrial census is divided, the wood and paper group, which includes the manufacture of lumber, pulp and paper as well as the wood and paper-using industries, heads the lists in number of establishments with 6,751, in capital invested with $929,589,278, in total number of employees with 134,185 and in salary and wage distribution with $260,916,729.

In few industries does manufacture add a higher percentage to the value of raw material used than in the wood and paper-using industries; in the manufacture of pulp and paper this percentage is 252 and in the lumber industry, 171. By the manufacture of lumber into planing-mill products the value is increased by a further 191 p.c. For the wood and paper group as a whole the net value of production or the value added by manufacture in 1926 was $339,062,685, or 130 p.c. of the value of raw materials used. In this respect the wood and paper group of industries also surpasses all the other groups of manufactures. Further details are given in the Manufactures chapter on pp. 416 and 417 of the present volume.

The forests of Canada contribute an important part of her total export trade. In 1926 the wood and paper group of exports amounted to $286,305,842 or about 22 p.c. of the total export trade of $1,268,581,976. This group was exceeded in this respect only by the agricultural and vegetable products, with 46 p.c. and followed by the mineral products, with 15 p.c. of the total. Forest products are also prominent among the individual items of exportation. Newsprint paper is second only to wheat on the list and sawn lumber and wood pulp come fourth and fifth. The gross contribution of the forest toward a favourable trade balance for Canada amounted to $232,892,527 in 1926.

Subsection 7.—Forest Depletion and Increment.

Fire Losses.—No accurate summing up of forest fire losses in Canada's forests has ever been made, but it has been estimated that 60 p.c. of the original forest has been burned, 13 p.c. has been cut for use and 27 p.c. remains. Though the loss of merchantable timber has been greatly reduced in recent years by forest protective services and the education of the public, it still constitutes a serious drain on our resources. At a low estimate fire destroys annually about 900 million cubic feet of merchantable timber and the young growth on 1,300,000 acres.

Since the historic Miramichi fire which burned along the valley of the Miramichi river in New Brunswick in 1825 there have been a number of disastrous forest fires. About 1845 vast areas were burned over west of lake Superior. Some years later a very extensive fire burned along the Height of Land from lake Timiskaming to Michipicoten. In 1871 a fierce fire swept more than 2,000 square miles of forest from lake Nipissing westward along the north shore of Georgian bay. About the same time the greater part of the Saguenay and Lake St. John district, in Quebec, was swept by one of the most destructive fires on record. Two other fires in 1891 and 1896 devastated over 2,000 square miles of country in the southern Algoma district. In Quebec, the country along the line of the Quebec and Lake St. John railway also suffered by a number of disastrous forest fires.

During more recent times, a series of disastrous fires swept over Northern Ontario. A number of isolated fires around the mining camp of Porcupine culminated, on July 11, 1911, in a conflagration which resulted in the loss of 72 lives and property damages estimated at $3,000,000. In 1916, fires in the same general region were responsible for the deaths of at least 224 people. In 1922 a third fire destroyed the town of Haileybury and other centres. In 1908, a fire originating in the forest around Fernie, British Columbia, destroyed that city. Every year thousands of acres are devastated by fires of less individual importance, which in the aggregate are rapidly depleting our forest resources.

Speaking generally, there are two annual periods in Canada when the forest fire hazard is highest—in the spring, after the disappearance of the snow, when the forest floor is dry and the green underbrush has not yet developed, and again in the fall when the green growth is dead and the ground is covered with dry leaves. Statistics collected by the different government administrations and the Quebec protective associations show that over 95 p.c. of the fires of known origin are due to human carelessness and therefore preventable. Campers, settlers and railways are responsible for most of the fires whose origin is determined. Other causes, including lumbering operations, lightning and incendiarism, account for smaller proportions.

Losses through Insects and Fungi.—From 1912 to 1923 the spruce budworm caused tremendous damage to the spruce and balsam fir forests in Eastern Canada. In Quebec, it was estimated that 100 million cords of pulpwood were destroyed by this insect, and in New Brunswick the loss was placed at 15 million cords. In this region the active stage of the infestation is now practically over, but the insect is now causing damage in Northern Ontario and Cape Breton island. Other insects, though not as destructive as this one, entail a heavy drain on the forest. The loss caused by the various forms of rot and other fungous diseases is probably not less than that caused by insects under normal conditions. The butt rot is especially prevalent in balsam fir, and the value of the hardwoods is also greatly decreased by rot.

Summary of Losses and Increment.—The annual consumption of standing timber for use amounts to about 2,708,000,000 cubic feet. At a very low estimate, fire destroys annually about 900,000,000 cubic feet of merchantable timber and the young growth on 1,300,000 acres of various ages. The destruction occasioned by insects, fungi and windfall is not known, but is estimated at 800,000,000 cubic feet per annum. It may be safely estimated that the forests of Canada are being depleted at the rate of upwards of 4,400,000,000 cubic feet per annum. With about 665,800 square miles of timber in a growing condition, an average annual increment of 10 to 11 cubic feet per acre would be quite possible under forest management and would cover this depletion, but in view of the destruction of young growth which occurs and the deterioration of the forests and the soil, caused by repeated fires, there is little hope that this increment is being produced at the present time throughout Canada, although particular areas are producing greatly in excess of this quantity.

CHAPTER X.—THE FUR TRADE.

Historical Sketch.—The place which the fur trade held during the French *régime* in Canada, when for a century and a half it was at once the mainspring of discovery and development and the curse of settled industry, is familiar history. Later, the Hudson's Bay Company may be said with truth to have held the West until the Dominion had grown to absorb it, bequeathing to the civilization which came after a native race accustomed to the white man and an example of organization and discipline that was of lasting value. The salient facts in the story are given in the following paragraphs:—

From the earliest times the Basque and Breton fishermen from the "banks" had traded for furs. As the French court demanded more and more furs, adventurers came for the latter trade exclusively. Pont-Gravé and Chauvin built Tadoussac in 1599 as a centre for this trade with the Indians of the Saguenay, and when trade routes were discovered farther inland, the founding of Quebec and Montreal followed. The French Government from the first granted monopolies of the fur trade, always on the condition that the company should bring to Canada a stated number of settlers. But settlement and the fur trade could never go together—settlement, by driving fur-bearing animals farther afield, made trade increasingly expensive—and the great profits of the fur trade, together with its freedom and romance, took all the adventurous from the rational pursuits of settlers. Trade spread west and south by the river routes, convoys bringing the furs yearly to Montreal and Quebec. The de Caen Company, in the seventeenth century, sent yearly to France from 15,000 to 20,000 pelts. "Beaver" was made the Canadian currency.

In the meantime, English navigators had been seeking a Northwest Passage to the Orient. By 1632 their efforts came to an end with little practical result. Hudson bay, however, had been accurately charted, so that when the first English fur-trading ships came some 30 years later, they sailed by charted routes to a safe harbour. The first expedition came at the instigation of Radisson and Groseilliers, two French *coureurs des bois* who had travelled in the rich fur country north of lake Superior. They had sought aid in France, but being repulsed turned to England. The charter of the "Adventurers of England trading into Hudson's Bay" was obtained in 1670 by Prince Rupert, who became first governor of the company (whence the name Rupert's Land). In 1676, merchandise costing £650 was sent to the bay, and the furs got by barter sold in England for £19,500. The dividend on the stock of £10,500 was sometimes as high as 100 p.c. During the struggle with the French, beginning about 1685, no return was made, but with the English victory the company resumed payments, usually amounting to 20 p.c. per annum. Forts were built on Hudson bay and James bay at the mouths of rivers; the company, as monopolist, waited for the furs to be brought to its posts.

With the Seven Years' War, the fur trade from the south passed out of the hands of the French, and until 1771 the English were busy re-discovering the old French routes to the West. A period of open competition followed. The discoverer of a new fur district was soon followed by competitors who undersold him and were undersold by him until some or all were ruined and left for new fields. The Northwest Company, founded in 1783-4, was a result of such competition. No capital was deposited, but each party supplied a proportion of the articles needed for trade. The Northwest Company pursued a vigorous policy, founding

posts to control all the best fur districts. The Hudson's Bay Company felt the keenness of the competition, and was forced to abandon its ancient policy of waiting for furs to be brought to the bay. By 1816, the rivals had absorbed or ruined eleven other partnerships, and were themselves on the verge of ruin. Finally, in 1821, the two were joined under the name of the older company. The Northwest Company brought with it the control of the Pacific and Arctic watersheds, to be added to the lands draining into Hudson bay, and over the whole region the Hudson's Bay Company secured legal recognition of its monopoly of the fur trade. There followed 40 years of great prosperity. The company's rights of exclusive trading in Indian territory expired in 1859, and ten years later it surrendered its other privileges. In return, Canada granted £300,000 to the company, as well as lands about its trading posts, and one-twentieth of the land in the fertile belt between the North Saskatchewan river and the United States boundary. The Hudson's Bay Company thereupon became a trading company, with no extraordinary privileges.

The Modern Industry.—Great changes have come over the trade in recent years. The railway has revolutionized conditions wherever its influence reaches. Steamboats now ply upon the larger lakes and rivers. Rising values have led to new processes of treatment and to the utilization of products once rejected. Competition has been encouraged, and new territory is eagerly sought as in the days prior to 1821. The modern competition, though it ranges throughout Canada, has centred at Edmonton, on the edge of the great preserve. Winnipeg is now the chief collecting and distributing point of the Hudson's Bay Company, though Moose Factory is visited once a year, as formerly, by a vessel from London. Montreal collects the furs of the Ottawa valley and the Quebec hinterland, and receives the bulk of the supplies.

During the Great War, the important market changed from London to the United States. Of the $5,100,000 worth of undressed furs exported to England and the United States in 1914, England received $3,000,000; in 1919, out of $13,300,000 worth, only $3,700,000 went to England. Figures of exports in recent fiscal years will be found in Table **12** of the chapter on External Trade.

At the close of the war, Montreal took a position as an international fur market, holding the first Canadian fur auction sales in 1920, when 949,565 pelts, valued at $5,057,114, were disposed of. At the auction sales held in Montreal in 1927 there were 1,344,212 pelts sold for $6,273,755. Sales are also held at Winnipeg and Edmonton. A growing industry is that of the dressing and dyeing of furs. In 1926 the number of fur skins treated in Canadian plants was 5,444,739, compared with 4,190,351 in 1925. The plants in operation numbered 11 in 1926, 10 in 1925 and 8 in 1924.

Improved methods of capture, together with the advance of lumbering, mining and agricultural settlement, have driven fur-bearing animals farther and farther afield. Close seasons have been declared for Russian sable, Bolivian chinchilla and Canadian beaver, but even this has been insufficient, as is shown by a continued decrease of the numbers of the animals. The fur trade has taken other methods to supply the demand by re-naming common and despised furs and by encouraging the use of the furs of domestic animals. About 40 years ago, Persian lamb, astrachan and broadtail, the product of the Karakul sheep, came into general use. Several Karakul sheep farms are now established in Canada, the largest of which is situated in Alberta. Of fur-bearing wild animals the fox has proved the best suited for domestication. The successful breeding of the fox on fur farms came in the period of rising prices after 1890, with the introduction of woven wire fencing. Other

animals have been domesticated, though less successfully than the fox—raccoon, mink, marten, skunk, muskrat and beaver. For a review of the fur farming industry of Canada, see pp. 259 to 261 of the 1927-28 edition of the Year Book.

Conservation.—The conservation of the wild life of Canada has been made a special object of Government policy through the organization, in 1916, of the Advisory Board on Wild Life Protection, to co-ordinate the efforts of various Departments and Branches of the Dominion Government in matters relating to the conservation of the wild life resources of Canada. The Northwest Game Act and the Migratory Birds Convention Act are the most important subjects to which the attention of the Board is specially directed and upon which it makes recommendations. In addition, the Board investigates and studies all problems relating to the protection and better utilization of all fur-bearing animals, "big game" mammals and to bird life, whether game birds, insectivorous birds or others. The Board serves entirely without remuneration and in the twelve years of its existence has incurred no expenditure.

In all provinces and territories of the Dominion, regulations governing the taking of fur-bearing animals are in force, and most kinds are protected during certain seasons of the year. In cases where special protection is necessary to avoid extermination of the species, the killing of the animals is prohibited for a period of years. Licenses are required for trapping and trading, and a direct revenue is derived by the provinces and territories from raw furs.

Fur Trade Statistics.—Statistics of the number and value of raw furs and skins taken were collected at the decennial censuses of 1881 and subsequently till 1911, the figures showing a value of $987,555 taken in 1880, $768,983 in 1890, $899,645 in 1900 and $1,927,550 in 1910. In 1920 the Dominion Bureau of Statistics commenced the annual collection of returns from fur traders, and the figures of pelts taken and their value are given for the eight available years in Table **1.** The high value shown in 1920 is due to the inflated prices of that time. Since 1921 the general tendency has been toward increased numbers and values.

Details by provinces of the number of pelts taken in the two latest years are given in Table **2**, and details by kinds in Table **3.** In the latter it will be noted that foxes, taken together, are the leaders, followed by muskrats and beavers. Minks, coyotes and martens each contributed in the year ended June 30, 1927, over $1,000,000 to the fur production of Canada.

1.—Summary of the Numbers and Values of Pelts purchased by Traders from Trappers and Fur Farmers, years ended June 30, 1920-1927.

Years ended June 30.	Pelts.	Value of pelts.
	No.	$
1920	3,600,004	21,387,005
1921	2,936,407	10,151,594
1922	4,366,790	17,438,867
1923	4,963,996	16,761,567
1924	4,207,593	15,643,817
1925	3,820,326	15,441,564
1926	3,686,148	15,072,244
1927	4,289,233	18,864,126

2.—Numbers and Values of Pelts purchased by Traders from Trappers and Fur Farmers, years ended June 30, 1926 and 1927.

Provinces.	Number of Pelts.		Value of Pelts.	
	1925-26.	1926-27.	1925-26.	1926-27.
			$	$
Prince Edward Island	4,944	7,449	308,687	480,342
Nova Scotia	60,912	45,354	301,450	312,030
New Brunswick	63,124	65,561	288,252	428,667
Quebec	269,875	297,123	2,250,809	3,065,323
Ontario	696,413	731,868	3,491,512	3,919,491
Manitoba	600,536	364,713	1,869,904	1,618,368
Saskatchewan	650,811	559,988	1,370,554	1,621,436
Alberta	975,855	1,775,325	2,122,778	2,256,353
British Columbia	153,574	212,096	1,121,620	1,798,026
Yukon	35,767	25,991	320,803	382,261
Northwest Territories	174,337	203,765	1,625,875	2,981,829
Total for Canada	**3,686,148**	**4,289,233**	**15,072,244**	**18,864,126**

3.—Kind, Number, Total Value and Average Value of Pelts of Fur-bearing Animals purchased by Traders from Trappers and Fur Farmers, years ended June 30, 1926 and 1927.

Kinds.	Number of Pelts.		Total Value of Pelts.		Average Value per Pelt.	
	1925-26.	1926-27.	1925-26.	1926-27.	1925-26.	1926-27.
			$	$	$	$
Badger	13,373	22,089	46,603	156,441	3·48	7·08
Bear, black and brown	6,096	6,150	41,470	39,804	6·80	6·47
Bear, grizzly	37	44	277	786	7·49	17·86
Bear, white	330	203	3,512	3,711	10·64	18·28
Bear, unspecified	77	224	668	2,706	8·68	12·08
Beaver	111,707	100,364	2,208,855	2,292,871	19·77	22·85
Coyote or prairie wolf	94,698[1]	93,627	789,315	1,113,453	8·34	11·89
Ermine (weasel)	482,211	493,146	640,833	727,698	1·33	1·48
Fisher or pekan	5,899	7,893	219,806	405,045	37·27	51·32
Fox, cross	21,730	17,408	533,113	793,470	24·53	45·58
Fox, red	90,745	74,391	1,274,816	1,511,891	14·05	20·32
Fox, silver	12,464	18,398	987,246	1,674,342	79·21	91·01
Fox, blue	372	291	18,609	18,777	50·00	64·53
Fox, white	35,026	51,262	1,091,144	2,237,076	31·15	43·64
Fox, unspecified	798	949	7,878	16,947	9·87	17·86
Lynx	33,054	28,706	607,459	906,477	18·38	31·58
Marten or sable	36,940	42,048	676,405	1,046,819	18·31	24·90
Mink	156,658	93,056	2,024,866	1,426,817	12·93	15·33
Muskrat	1,953,545	1,774,954	3,014,175	3,341,446	1·54	1·88
Otter	10,644	9,385	249,285	252,756	23·42	26·93
Rabbit	427,567	1,234,850	25,745	123,753	0·06	0·10
Raccoon	32,545	27,677	207,517	210,810	6·38	7·62
Skunk	130,172	94,521	204,234	154,720	1·57	1·64
Squirrel	2,640	63,294	261	6,586	0·10	0·10
Wild cat	3,324	3,403	17,578	27,213	5·29	8·00
Wolf	13,611[1]	18,539	153,623	328,836	11·29	17·74
Wolverine or carcajou	1,113	1,595	13,758	29,994	12·36	18·80
Caribou	4	170	15	682	3·75	4·01
Deer	6,789	7,355	9,779	5,616	1·44	0·76
Moose	876	1,309	2,997	3,657	3·42	2·79
Mountain goat	3	2	6	4	2·00	2·00
Mountain sheep	3	3	5	5	1·67	1·67
Panther or cougar	9	372	38	2,232	4·22	6·00
Civet cat	229	275	103	184	0·45	0·67
Domestic cat	859	1,280	250	501	0·29	0·39
Total for Canada	**3,686,148**	**4,289,233**	**15,072,244**	**18,864,126**	–	–

[1] Coyote pelts in Manitoba are included with wolf pelts in 1925-26.

CHAPTER XI.—THE FISHERIES.

Section 1.—The Early Fisheries.

Fishing is one of the earliest and most historic industries of Canada. From a date which precedes authentic record, the Normans, the Bretons and the Basques were on the cod-banks of Newfoundland. Cabot, in 1498, when he first sighted th mainland of North America, gave it the name of "Bacalaos", the Basque word for codfish, which he found already in use among those hardy seamen. Cape Breton, one of the oldest place-names in America, is another memorial of the early French fishermen—and the Spaniards and the Portuguese were but little behind. Fernandez de Navarette mentions all three as frequenters of the Grand Bank before 1502. The fishing was by hand lines over barrels made fast to the bulwarks to prevent fouling, the vessels remaining during fine weather, then returning to France with from 30,000 to 50,000 cod. Voyages along the coast soon showed the cod as plentiful inshore as on the outer banks, and it became common for a crew to anchor in a bay, erect a hut on shore, and make daily excursions to the fishing grounds—the product being salted and dried on land and at the end of the season shipped to France. Jacques Cartier, when he went up the St. Lawrence in 1534, found traces everywhere of these early "Captains Courageous" and their rivalries in arms, as well as in the capture of the teeming product which had tempted them so far from home. An establishment of the kind just mentioned was founded at Tadoussac by Chauvin in 1599. Soon the fishermen began to stay all winter and thus to erect permanent fishing settlements. Fishing, therefore, may well be regarded as the first industry to be systematically prosecuted by Europeans in what is to-day the Canadian domain. It has never since ceased to yield a perennial harvest to both Europe and America.

By the Treaty of Utrecht in 1713, Britain became the owner of Newfoundland and excluded France from fishing and drying fish on certain sections of the coast, but France retained the fisheries of Cape Breton and the gulf. The Seven Years' War (1756-1763) put a stop to continuous fishing. At its close, the Robin family of Jersey came to Canada, and gradually acquired the former French fishing stations. Until the arrival of the Loyalists, all other fishing but cod was neglected. Inshore fisheries alone (including those of the Labrador coast) were developed during this phase; no deep-sea fishing vessel put out from Lunenburg, now the chief centre of the deep-sea fishery, until 1873.

Section 2.—The Canadian Fishing Grounds.

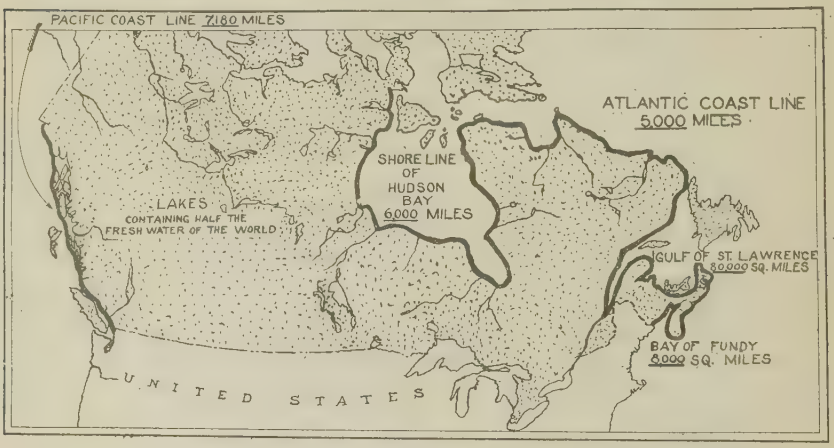
The fishing grounds of the Dominion of Canada are perhaps the most extensive in the world. On the Atlantic, from Grand Manan to Labrador, the coast line, not including the lesser bays and indentations, measures over 5,000 miles. The bay of Fundy, 8,000 square miles in extent, the gulf of St. Lawrence, fully ten times that size, and other ocean waters, comprise not less than 200,000 square miles, or over four-fifths of the area of the fishing grounds of the North Atlantic. In addition there are on the Atlantic seaboard 15,000 square miles of inshore waters controlled entirely by the Dominion. Large as are these areas, they represent only a part of the fishing grounds of Canada. Hudson bay, with a shore 6,000 miles in length, is greater in area than the Mediterranean sea; the Pacific coast of the Dominion measures 7,180 miles in length and is exceptionally well sheltered; whilst throughout the interior is a series of lakes which together contain more than half

of the fresh water on the globe, Canada's share of the Great Lakes alone amounting to over 34,000 square miles, a total which of course does not include lake Winnipeg (9,457 square miles), lake Manitoba and others of even greater area.

Still more important than the extent of the Canadian fishing grounds is the quality of their product. It is an axiom among authorities that food fishes improve in proportion to the purity and coldness of the waters from which they are taken. Judged by this standard, the Canadian cod, halibut, herring, mackerel, whitefish and salmon are the peers of any in the world. It is possible, therefore, to state that by far the most valuable fisheries of the western hemisphere, if not of the globe, belong to Canada.

It will be seen from the above that it is impossible to deal with the Canadian fisheries in the aggregate; they are those of a continent rather than of a country, and are of corresponding diversity. Omitting the tremendous Hudson bay and peri-Arctic region, which extends from Ungava to Alaska and is known to contain a number of valuable food fisheries in addition to its whaling grounds, the Canadian fisheries may be divided into Atlantic, inland and Pacific fisheries.

The Fishing Grounds of Canada.


PACIFIC COAST LINE 7,180 MILES
ATLANTIC COAST LINE
5,000 MILES
SHORE LINE OF HUDSON BAY 6,000 MILES
LAKES CONTAINING HALF THE FRESH WATER OF THE WORLD
GULF OF ST LAWRENCE 80,000 SQ. MILES
BAY OF FUNDY 5,000 SQ. MILES
UNITED STATES

Atlantic Fishing Grounds	200,000 square miles.
Inland Waters	137,000 "
Hudson Bay	567,000 "

Estuarian Fisheries of British Columbia and Pacific Ocean Fisheries.

Atlantic Fisheries.—These were the first Canadian fisheries in point of time, and until 1918 they remained the most important in aggregate value of product. Cod, halibut, haddock, hake, herring, mackerel, lobster, oyster, hair seal and white whale fisheries are included. The estuarian and inland waters of the Maritime Provinces and of Quebec are sometimes considered as distinct; if they are added the list of products would embrace the salmon, the shad, the gaspereau (alewife), the smelt, the striped bass, the tom cod, the trout and the maskinongé. Conditions are fairly uniform throughout these fisheries, which are commonly divided into the inshore and deep-sea fisheries. The inshore or coastal fishery is carried on in small boats, usually motor-driven, with crews of two or three men, and in small vessels

with crews of from four to seven men. The means of capture employed by boat fishermen are gill nets and hooks and lines, both hand lines and trawls; trap nets, haul seines and weirs are operated from the shore. Haddock as well as cod is a staple product; during the spring and summer it is split and salted, but the important season is the autumn, when the fish are shipped fresh or else smoked and sold as finnan haddie. The deep-sea fisheries are worked by vessels of from 40 to 100 tons, carrying from 12 to 20 men, operating with trawl lines from dories. The fleets operate on the various banks, such as Grand Bank, Middle Ground and Banquereau. The vessels, built by native hands, remain at sea sometimes for months at a time, and in the hands of sailors who have no superior seldom come to grief. When they return, the fish, which have been split and salted on board, are taken ashore, washed and dried. The West Indies are the chief market for this product. No cod fish in the world stands the tropical climate like that cured by Nova Scotian fishermen. Steam trawling, as it is carried on in the North Sea, was introduced on the Atlantic coast of Canada several years ago. There are now several steam trawlers operating from Nova Scotian ports. They operate practically the whole year and their catches are utilized entirely for the fresh fish trade.

Lobstering is another distinctive industry. In 1870, there were three lobster canneries on the Atlantic coast of Canada; to-day the canneries number almost 500 and give work to nearly 7,000 people; 30,000,000 lobsters is a normal catch. The difficulty of enforcing regulations as to the capture of undersized and spawning lobsters offers a constant problem in connection with the output, but a decline is now thought to have been arrested. Oysters, once plentiful everywhere, are now found in somewhat diminished quantities. In New Brunswick the canning of sardines, which are young herrings and not a distinct type of fish, is second only to lobstering.

The fishing population of the Maritime Provinces is a specialized and stable industrial class. The coast fisheries are operated from April to November, or to January in sheltered districts, and though the larger vessels work all winter, several thousand men are available for a time each year for other employment. This they find about the small plots of land which most of them own or occupy, in the lumber camps of New Brunswick or in the collieries of Nova Scotia. A few from Lunenburg and other centres engage in the West Indian trade. Apart from restrictions of weather and close seasons, the prevailing method of paying the men on shares has a further tendency in years of low catches or prices to drive them into subsidiary occupations.

In view of the various disabilities attaching to the industry, an Act of the Provincial Legislature of Nova Scotia was passed in 1905, which provided for the organization of fishermen's unions or "stations" throughout the province, in affiliation with a central body, to meet annually for the discussion of common problems such as transportation facilities, the cordage supply, prices, methods of catching and curing fish, etc. Several successful conventions were held. In New Brunswick similar legislation was enacted. After a few years' existence, however, the unions ceased to operate, and fishing activities are again prosecuted independently by the various individuals and firms interested.

Inland Fisheries.—The Great Lakes and tributary waters of the St. Lawrence form a second great division of the Canadian fisheries. Whitefish, trout, pickerel and lake herring are the most important commercial fishes of Ontario, though pike, sturgeon and coarse fish yield a fair return. The Quebec inland fisheries

are comparatively unimportant. The story of the Great Lakes fisheries is one of reckless early depletion and subsequent slow recovery through re-stocking. Single hauls of 90,000 whitefish were once common; in the Detroit river the fish used to be driven into pens where they were captured or dried by the hundreds of thousands, to be used later as fertilizer. All this reaped its due reward in barren waters and a demoralized market. The season on the Great Lakes lasts from six to eight months, and though fishing through the ice is followed by many, a large number depend on miscellaneous employment between the seasons. Moving westward, lake Winnipeg, lake Winnipegosis, lake Manitoba and the smaller lakes to the north and west furnish most of the fish products of Manitoba. Whitefish and pickerel are the chief products, but pike, tullibee, goldeye and many other varieties abound. In Saskatchewan and Alberta, commercial fishing is confined to the regions north of the Saskatchewan river, where whitefish in large quantities are taken. The problem of transportation is keenly felt; some of the greatest lakes of the continent —Reindeer, Athabaska, Great Slave, Great Bear—and hundreds of smaller bodies of water are still beyond reach from a marketing point of view. The lakes of the West, however, repeating the part which the St. Lawrence played in the days of the French *régime* and the cod banks in the history of New England, have assisted greatly in the settlement of the country by providing a much needed food supply for the pioneers.

Pacific Fisheries.—In British Columbia there is an interior fishing region which corresponds in the main to the prairie section; in the early history of the province it is doubtful if the fur trade (which opened the door by way of the Rocky mountains to later enterprise) could have established its footing but for these fisheries. The great piscatorial wealth of British Columbia, however—the source from which she produces approximately two-fifths of the fish products of Canada, and has built up a trade which reaches to the ends of the earth—is the estuarian salmon fisheries of the Fraser, the Skeena, the Nass and other rivers of the Pacific slope. Every species of this king of food fishes (which, however, is not the true salmon) known to the waters of the Pacific is to be found in the British Columbia coast waters—the sockeye, the spring, the cohoe, the pink and the chum salmon. Of these the sockeye is by far the most important, owing to its abundance and its prevailing deep red colour and excellent texture, which have created so keen a demand for it in the British market. On the Fraser river, which used to be the chief source of supply, but has now yielded place to the Skeena and other northern waters, the yield varies to a considerable extent from year to year. The run begins late in July and is at its height in the opening weeks of August, though the northern rivers have a somewhat earlier season. The spring or quinnat salmon is a much larger fish; it was the species first used in the United States for canning. The run begins early in the spring and continues until July. The cohoes are smaller, running like the sockeye in compact schools during September and October on the Fraser and earlier on the northern streams. The chum salmon is salted for export to the Orient. The pink salmon, again, follows the sockeye. Many of the employees in this fishery are Chinese, Japanese and Indians, the Chinese preponderating in the canneries and the Indians and Japanese in fishing operations.

Until recent years the other coastal fisheries of British Columbia were only slightly developed. Halibut abounds off Vancouver island and between the Queen Charlotte islands and the mainland, and though the first endeavour to establish an industry was unsuccessful, by 1903 British Columbia supplied 10,000,000 pounds of the 25,000,000 taken on the whole Pacific coast north of California. The former

figure has since trebled. Similarly, the herring industry remained undeveloped until recently. There is also the whale fishery, which has been organized in recent years with three stations, one on Vancouver island and two on the Queen Charlotte islands. The yearly catch of about 400 (258 in 1927) includes whales of many kinds—sulphur bottom, finback and humpback, with an occasional sperm whale. Whale hunting is carried on in fast boats with Svend Foyn harpoon guns—a method which was introduced from Norway. Every scrap of the whale is used—oil, whalebone and guano are its most important products. Black cod, oulachon, smelts, pilchards, sturgeon, shad and bass are also abundant in British Columbian waters.

A word might be added with regard to the fur-seal fisheries of the Pacific, whose historic headquarters was the city of Victoria. The industry has disappeared, in part through the scarcity of the animals and in part through the workings of the Pelagic Sealing Treaty of 1911[1]. The hair-seal fleets of the North Atlantic make St. John's, Newfoundland, their headquarters; a few Canadian vessels, however, clearing from Halifax, N.S., take fur-seals off the Falkland islands.

Game Fish.—The above is a purely industrial and commercial survey. Fishing for sport, however, has its economic side in a country of such famous game fish as the salmon of the Restigouche, the black bass of the Quebec and Ontario highlands and the trout of the Nipigon. A considerable public revenue is derived from the leasing of waters in sparsely settled districts to clubs and individuals for sporting purposes. Several hundred guides find employment here during the summer months.

Section 3.—The Government and the Fisheries.

Upon the organization of the Government at Confederation, the administration of the Canadian fisheries and marine was placed in the charge of a Department of the Dominion Government, which then exercised complete jurisdiction over the fisheries under the supervision of a Cabinet Minister, with a large staff of inspectors, overseers and guardians to enforce the fishery laws. The expenditure of the Dominion on the fisheries in the fiscal year 1927-28, including Civil Government salaries, contingencies, etc., was $1,894,362, and the revenue $234,855. In 1882, 1898, 1913 and 1920, decisions in the courts considerably altered the status of jurisdiction as between the Dominion and the provinces. To-day the Dominion controls the tidal fisheries of the Maritime Provinces and British Columbia and the fisheries of the three Prairie Provinces. The non-tidal fisheries of the Maritime Provinces and Ontario and both the tidal and non-tidal fisheries of Quebec are controlled by the respective provinces, but the right of fisheries legislation for all provinces rests with the Dominion Government.

Conservation.—River and lake fisheries certainly, and sea fisheries probably, if left to themselves, conform to the economic law of diminishing returns. The Canadian Government, accordingly, has had for a main object the prevention of depletion, the enforcement of close seasons, the forbidding of obstructions and pollutions and the regulation of nets, gear and fishing operations generally. In addition, an extensive system of fish culture has been organized; the Dominion in 1927 operated 24 main hatcheries, 7 subsidiary hatcheries and 4 salmon-retaining ponds at a cost of $349,000, and distributed 295,000,000 eggs, fry or older fish, mostly B.C. salmon, Atlantic salmon, pickerel and whitefish. The young fish are distributed gratis if the waters in which they are to be placed are suitable.

[1]For the text of this treaty, see pp. lxxxvii-xciii of the Statutes of Canada, 1912.

Scientific Research.—Stations under the direction of the Biological Board of Canada for the conduct of biological research into the numerous complex problems furnished by the fisheries are established at St. Andrews, N.B., and Nanaimo, B.C.; Toronto, McGill, Queen's, Manitoba, British Columbia and the chief Maritime Province universities send workers to both stations, chiefly professors and trained specialists. The life-histories of edible fishes, the bacteriology of fresh and cured fish, improved methods of handling and preparing fish and numerous other practical problems have been taken up and scientific memoirs and reports issued.

Direct Assistance.—For the rest, the action of the Government has been in the way of rendering direct assistance in specific cases of difficulty. Experimental reduction plants were operated for some years to encourage the capture of dog-fish. For some time also an expert was engaged to conduct a series of demonstrations of the Scottish method of curing herring, with a view to improving the Canadian cured product. Under authority of the Fish Inspection Act, systems of instruction in improved methods of fish-curing and barrel-making and inspection of the cured product have been conducted by specially appointed officials for some years. Fish canneries, again, are inspected under the authority of the Meat and Canned Foods Act. A quarterly bulletin on the sea fisheries is issued for the benefit of the trade. Finally, a fleet of armed cruisers patrols the coastal and inland waters for the prevention of poaching and the enforcement of regulations.

During the war it became desirable to increase as far as possible the consumption of fish, reserving the less perishable animal foods for export to our allies. The Government, therefore, undertook to provide for the rapid transit of sea fish on its railway lines to the markets of the inland provinces, and by a publicity campaign to stimulate the consumption of fish. Much was accomplished in this direction, and the present annual per capita consumption of fish in Canada is estimated at upwards of 22 pounds.

International Problems.—The chief international fisheries problem is the question of the rights of the United States, whose fishermen were granted, by the Treaty of Versailles, certain privileges in the Canadian inshore fisheries. Losing these by the war of 1812, the United States, after 1818, surrendered all but their liberty to call at Canadian ports for shelter, wood, water, or to make repairs, and to fish around the Magdalen islands and on the north shore of the gulf of St. Lawrence from Point Joli eastward, and to dry and cure their fish in any of the unsettled bays on this portion of the North Shore.

Questions of interpretations to be placed on certain parts of the Treaty of 1818 were set at rest in the years 1854-1866, by the Reciprocity Treaty. This treaty provided for the free admission into either country of the fish products of the other, and the fishermen of each country were allowed to fish in Atlantic territorial waters of the other, with the exception of specified rivers and other grounds.

In 1871, the Treaty of Washington revived the fishery provisions of the Reciprocity Treaty of 1854, and provided for a commission to determine the compensation to be paid by the United States to Great Britain as the difference in the value of the concessions mutually granted. This commission sat at Halifax in 1877, handing down the "Halifax Award", the amount of which was $5,500,000. In 1885, however, the United States terminated the fisheries articles of this treaty, and a period of disagreement followed. A settlement was negotiated in 1888, when the plenipotentiaries of the two nations agreed to the "Unratified Treaty of 1888", under which United States fishing vessels were granted, without fee, annual licenses

authorizing them to purchase provisions and outfits in Canadian ports, to transship catches and to ship crews. Out of this treaty grew the so-called *modus vivendi* licenses. Since it was recognized that the treaty could not receive official sanction before the commencement of the fishing season, it was agreed that the United States fishing vessels, on paying $1.50 per registered ton, should receive annual licenses conveying the above privileges. The treaty was rejected by the United States Senate, but Canada continued to issue *modus vivendi* licenses up to 1918, when arrangements were made for reciprocal privileges in the ports of either country. The arrangement was discontinued in the United States on July 1, 1921. In the following year the *modus vivendi* licenses were revived in Canada, but the system was terminated on Dec. 31, 1923, and the United States fishing vessels are now limited to the provisions of the Treaty of 1818.

On the Great Lakes also, the more important fishery problems, such as re-stocking and marketing, are necessarily international in character, and are complicated by the number of State Governments interested. Much the same situation has developed in British Columbia, where the sockeye of the Fraser are taken by the canners of Puget sound in quantities that largely exceed the catch of the Canadian canners, and by trap nets and other methods forbidden in Canadian waters. In 1906 an International Commission first discussed the question, while in 1922 the prohibition of sockeye fishing in the Fraser for five years, with a view to conservation, was recommended by a Parliamentary Commission.

The Halibut Fishery.—The halibut fishery on this side of the Pacific is engaged in only from Canadian and United States ports, but owing to the fact that it is largely carried on beyond territorial waters, neither country alone can control it. At the same time it is in the interests of both countries that the fishery should be permanently maintained in a flourishing condition. The question of finding an adequate method of dealing with the matter was therefore one of those referred to the Canadian-American Fisheries Conference that was appointed in 1918 by the Governments of the two countries to consider a settlement of outstanding fishery questions between Canada and the United States. In 1922 Canada proposed that the halibut question should be considered by itself. This was agreed to, and resulted in the treaty signed Mar. 2, 1923, "For the Protection of the Pacific Halibut". Under this treaty a close season is provided for halibut fishing from Nov. 16 in each year to Feb. 15 following, both dates inclusive. This treaty was ratified on Oct. 21, 1924, and became effective Nov. 1, 1924 (see c. 75 of the Revised Statutes of Canada, 1927).

Fishing Bounties.—An important though indirect aftermath of the Washington Treaty remains. By an Act of 1882 (45 Vict., c. 18), for the development of the sea fisheries and the encouragement of boat-building, provision was made for the distribution annually among fishermen and the owners of fishing boats of $150,000 in bounties, representing the interest on the amount of the Halifax award. An Act of 1891 (54-55 Vict., c. 42), increased the amount to $160,000, the details of the expenditure being settled each year by Order in Council. For the year 1927, payment was made on the following basis:—to owners of vessels entitled to receive bounty, $1 per registered ton, payment to the owner of any one vessel not to exceed $80; to vessel fishermen entitled to receive bounty, $8.00 each; to owners of boats measuring not less than 12 feet keel, $1 per boat; to boat fishermen entitled to receive bounty, $6.60 each. The claims paid numbered 9,609, compared with 11,036

paid in the previous year. The total amount paid in 1927 was $158,376. Details of the distribution of bounties for the years 1924 to 1927 are as follows:—

1.—Government Bounties paid to Fishermen for the calendar years 1924-1927.

Provinces.	Number of men who received bounties.				Amount of bounties paid.			
	1924.	1925.	1926.	1927.	1924.	1925.	1926.	1927.
	No.	No.	No.	No.	$	$	$	$
Prince Edward Island	1,546	1,546	2,066	1,713	11,410	10,671	13,221	12,095
Nova Scotia	10,205	10,060	10,623	9,564	86,300	82,551	83,007	82,107
New Brunswick	1,633	2,163	2,079	2,223	15,634	18,824	16,721	19,907
Quebec	6,430	7,023	7,554	6,222	46,482	47,948	46,819	44,267
Total	**19,814**	**20,792**	**22,322**	**19,722**	**159,826**	**159,992**	**159,768**	**158,376**

Fisheries Statistics.—The fisheries statistics of Canada are issued under an arrangement for statistical co-operation between the Dominion Bureau of Statistics and the Branches of the Dominion and Provincial Governments having jurisdiction with regard to fisheries throughout Canada. These Branches comprise the Fisheries Branch of the Dominion Department of Marine and Fisheries, exercising jurisdiction over the fisheries of the Maritime Provinces, the Prairie Provinces and British Columbia, and the Fisheries Branches of Ontario and Quebec, which have jurisdiction over the fisheries of their respective provinces, excepting that in the case of Quebec the fisheries of the Magdalen islands are under the jurisdiction of the Dominion authorities. The Province of British Columbia has a Fisheries Branch, but it does not engage in independent statistical work. Under the arrangement above referred to, the statistics of the catch and of the products marketed in the fresh state or domestically prepared are collected by the local officers of the Fisheries Branches, checked in the Department of Marine and Fisheries and compiled in the Dominion Bureau of Statistics. In the case of manufactured fish products, schedules similar to those of other sections of the Census of Industry are sent by the Bureau to the operators of canneries, fish-curing establishments, etc., the fisheries officers assisting in securing expeditious and correct reports.

Section 4.—The Modern Fishing Industry.

The existing fishing industry of Canada is in the main the growth of the past half century. No comparable figures of production are available prior to the Confederation of the provinces, but about 1836 the production of fish in what are now the three Maritime Provinces had an estimated value of something like $1,500,000, while the production of Lower Canada was probably worth $1,000,000. In 1870 the total was $6,500,000, and this was again more than doubled by 1878. In the 90's it passed $20,000,000, and in 1912, $34,000,000. The highest figure was reached in 1918, with over $60,000,000, but this was in a period of greatly inflated prices. (It will be understood that these figures represent the total values of fish marketed, whether in a fresh, dried, canned or otherwise prepared state.) Meanwhile the number of employees had mounted to over 70,000, and the total capital invested to over $50,000,000 in certain years, though the industry as a whole did not progress proportionately with the marked industrial expansion which set in after 1896.

Among individual fish products, the cod and the salmon long disputed the primacy; if the record back to the beginning is taken, the cod is the most valuable

fishery; in the past 20 years, however, the salmon has definitely taken the lead, and the heavy pack and high price of lobsters have more than once sent cod down to third place as in 1927, while halibut takes fourth place among the chief commercial fishes. These changes have, of course, affected the relative standing of the provinces, British Columbia now occupying the leading place that in earlier times belonged to Nova Scotia, and producing in recent years nearly half the total value. The yearly record of production since 1870, the total production by provinces for the past six years, and the record by principal fish products for the past five years in descending order of importance, are shown in Tables **2, 3** and **4.** The aggregate value of production in 1927, $49,497,038, shows a considerable decline from the high figure of $56,360,633 attained in 1926; the drop was mainly due to the smaller catch of salmon and cod. Preliminary estimates indicate a production of $54,000,000 in 1928.

2.—Total Value of the Fisheries of Canada, 1870-1927.

NOTE:—From 1870 to 1906, years ended June 30; from 1907 to 1917, years ended Mar. 31; since 1917, calendar years. No statistics are available for the nine months period ended Mar. 31, 1907.

Years.	Value.	Years.	Value.	Years.	Value.	Years.	Value.
	$		$		$		$
1870	6,577,391	1885	17,722,973	1900	21,557,639	1916	35,860,708
1871	7,573,199	1886	18,679,288	1901	25,737,153	1917	39,208,378
1872	9,570,116	1887	18,386,103	1902	21,959,433	1917	52,312,044
1873	10,754,997	1888	17,418,510	1903	23,101,878	1918	60,259,744
1874	11,681,886	1889	17,665,256	1904	23,516,439	1919	56,508,479
1875	10,350,385	1890	17,714,902	1905	29,479,562	1920	49,241,339
1876	11,117,000	1891	18,977,878	1906	26,279,485	1921	34,931,935
1877	12,005,934	1892	18,941,171	1908	25,499,349	1922	41,800,210
1878	13,215,678	1893	20,686,661	1909	25,451,085	1923	42,565,545
1879	13,529,254	1894	20,719,573	1910	29,629,169	1924	44,534,235
1880	14,499,979	1895	20,199,338	1911	29,965,433	1925	47,942,131
1881	15,817,162	1896	20,407,425	1912	34,667,872	1926	56,360,633
1882	16,824,092	1897	22,783,546	1913	33,389,464	1927	49,497,038
1883	16,958,192	1898	19,667,121	1914	33,207,748		
1884	17,766,404	1899	21,891,706	1915	31,264,631		

3.—Total Value of Fisheries, by Provinces, in the calendar years 1922-1927.

Provinces.	1922.	1923.	1924.	1925.	1926.	1927.
	$	$	$	$	$	$
Prince Edward Island	1,612,599	1,754,980	1,201,772	1,598,119	1,358,934	1,367,807
Nova Scotia	10,209,258	8,448,385	8,777,251	10,213,779	12,505,922	10,783,631
New Brunswick	4,685,660	4,548,535	5,383,809	4,798,589	5,325,478	4,406,673
Quebec	2,089,414	2,100,412	2,283,314	3,044,919	3,110,964	2,736,450
Ontario	2,858,122	3,159,427	3,557,587	3,436,412	3,152,193	3,670,229
Manitoba	908,816	1,020,595	1,232,563	1,466,939	2,328,803	2,039,738
Saskatchewan	245,337	286,643	482,492	494,882	444,288	503,609
Alberta	331,239	438,737	339,107	458,504	749,076	712,469
British Columbia	18,849,658	20,795,914	21,257,567	22,414,618	27,367,109	23,264,342
Yukon	10,107	11,917	18,773	15,370	17,866	12,090
Total for Canada	**41,800,210**	**42,565,545**	**44,534,235**	**47,942,131**	**56,360,633**	**49,497,038**

4.—Quantity[1] and Value[2] of Chief Commercial Fishes, calendar years 1923-1927.

Kinds of Fish.		1923.	1924.	1925.	1926.	1927.	Increase(+) or decrease(−) 1927 compared with 1926.
Salmon	cwt.	1,561,738	2,024,675	1,933,260	2,180,470	1,541,447	− 639,023
	$	12,534,515	13,784,920	15,760,630	19,607,082	15,065,063	− 4,542,019
Halibut	cwt.	354,325	359,647	340,007	339,918	329,032	− 10,886
	$	6,596,452	5,878,870	4,185,391	4,935,472	4,318,741	− 616,731
Lobsters	cwt.	381,628	272,213	340,838	339,583	316,831	− 22,752
	$	6,365,362	4,169,171	5,552,977	5,883,672	5,426,176	− 457,496
Cod	cwt.	1,801,757	1,888,316	2,309,000	2,733,864	1,978,803	− 755,061
	$	4,079,397	5,443,814	6,232,821	6,995,283	4,881,980	− 2,113,303
Herring	cwt.	1,841,062	2,127,432	2,413,973	2,423,457	2,724,113	+ 300,656
	$	2,659,804	3,147,123	3,117,841	3,238,919	3,358,088	+ 119,179
Whitefish	cwt.	157,788	167,706	186,648	190,644	185,664	− 4,980
	$	1,629,143	1,747,528	1,990,108	2,167,865	2,192,738	+ 24,873
Haddock	cwt.	304,565	337,860	344,386	496,802	421,709	− 75,093
	$	1,046,808	1,013,253	1,171,555	1,754,846	1,483,844	− 271,002
Sardines	brl.	134,561	270,076	158,533	173,166	174,695	+ 1,529
	$	1,016,810	1,244,605	1,017,206	1,175,268	1,046,575	− 128,693
Pickerel	cwt.	103,869	101,610	86,877	126,086	140,019	+ 13,933
	$	909,471	1,010,015	1,056,169	1,385,856	1,347,589	− 38,267
Smelts	cwt.	65,254	90,428	76,795	92,311	82,762	− 9,549
	$	868,629	1,154,641	1,035,504	1,174,185	1,117,330	− 56,855
Trout	cwt.	68,232	76,858	81,292	78,710	92,007	+ 13,297
	$	823,767	990,321	1,097,728	1,051,196	1,397,294	+ 346,098
Mackerel	cwt.	141,749	215,590	187,661	115,487	158,797	+ 43,310
	$	617,978	1,021,242	663,628	443,155	582,705	+ 139,550
Ling cod[4]	cwt.	–	–	–	–	49,916	–
	$	–	–	–	–	401,259	–
Clams and quahaugs	brl.	44,040	60,357	54,986	54,230	57,712	+ 3,483
	$	215,826	320,241	290,063	268,887	274,287	+ 5,400
Pike	cwt.	43,674	53,995	54,217	72,520	70,473	− 2,047
	$	197,024	230,261	278,369	407,181	356,992	− 50,189
Perch	cwt.	31,049	29,387	27,532	30,498	34,573	+ 4,075
	$	184,240	185,350	180,497	230,155	272,687	+ 42,352
Pickerel, blue	cwt.	32,547	30,601	34,453	30,385	31,173	+ 788
	$	179,011	168,306	275,624	182,310	187,038	+ 4,728
Soles	cwt.	3,675	6,835	7,926	11,691	25,075	+ 13,384
	$	28,757	35,431	51,174	74,798	143,898	+ 69,100
Sturgeon	cwt.	5,431	7,174	6,243	5,198	4,788	− 410
	$	176,619	248,786	201,227	159,438	143,720	− 15,718
Oysters	brl.	22,949	28,982	21,428	22,255	21,650	− 605
	$	152,776	212,408	185,353	209,378	197,781	− 11,597
Hake and cusk	cwt.	93,520	192,811	174,136	151,051	177,370	+ 26,319
	$	143,578	316,508	295,720	203,502	232,404	+ 28,902
Black cod	cwt.	16,679	18,183	14,956	10,358	16,430	+ 6,070
	$	136,492	130,334	114,315	89,371	123,421	+ 34,050
Tullibee	cwt.	23,785	42,346	61,804	101,525	121,764	+ 20,239
	$	127,661	175,268	290,754	645,945	633,150	− 12,795
Eels	cwt.	14,367	15,635	15,675	24,466	15,926	− 8,540
	$	99,848	127,255	146,062	231,559	139,932	− 91,627
Pollock	cwt.	71,249	54,787	76,396	86,416	16,185	− 70,231
	$	105,616	107,691	127,415	124,957	62,597	− 62,360
Pilchards	cwt.	19,492	27,485	318,973	969,958	1,368,582	+ 398,624
	$	92,036	82,845	182,911	1,256,721[3]	1,838,867[3]	+ 582,146
Swordfish	cwt.	14,343	5,575	4,551	12,936	7,299	− 5,637
	$	155,020	96,157	78,209	207,248	120,692	− 86,556
Scallops	cwt.	13,890	10,350	17,718	23,200	38,635	+ 15,435
	$	85,205	70,655	97,751	151,926	217,932	+ 66,006
Goldeyes	cwt.	6,130	6,597	7,263	11,685	11,485	− 200
	$	44,001	36,263	70,276	85,791	115,970	+ 30,179

[1]Caught and landed. [2]Marketed. [3]The total value in 1926 and 1927 includes pilchard oil and meal, while in 1925 these items were included under the common head of fish oil and fish meal. [4]Included with cod prior to 1927.

Operations in 1927.—Detailed Record of Production.—The total value of the products of the Canadian fishing industry in the calendar year 1927 was $49,497,038, as compared with $56,360,633 in 1926, $47,942,131 in 1925, $44,534,235 in 1924, $42,565,545 in 1923 and $41,800,210 in 1922. In Tables **5** and **6** will be found a statement for the whole of Canada of each fish product marketed in 1927

with comparative figures for the preceding year—Table 5 dealing with sea fish and Table 6 with products of the inland fisheries. In Table 7 an analysis is made of the change in the value of each product from the preceding year due to variations in price and quantity respectively. On the whole, prices were stationary, the decline of 12·2 p.c. in the value of production in 1927 being entirely due to the smaller quantities produced. In Tables 8 and 9 the numbers of the fish-canning and curing establishments are shown, together with the materials used and value of products.

5.—Quantities and Values of Sea Fish marketed during the calendar years 1926 and 1927.

Kinds of Fish.		1926.		1927.	
		Quantity.	Value.	Quantity.	Value.
			$		$
Cod, used fresh	cwt.	224,905	1,011,665	130,864	504,987
" fresh fillets	"	2,043	20,430	11,798	116,560
" green-salted	"	153,205	634,697	124,306	510,894
" smoked fillets	"	75,476	922,452	52,704	639,425
" smoked	"	1,175	9,400	216	1,728
" dried	"	626,897	3,958,011	447,656	2,682,197
" boneless	"	29,315	286,386	23,825	229,777
" canned	cases	2,935	19,756	2,416	19,196
" liver oil, medicinal	gal.	94,383	57,499	92,597	84,688
Haddock, used fresh	cwt.	226,035	839,338	160,145	570,409
" fresh fillets	"	4,002	47,739	21,366	235,144
" canned	cases	14,734	105,300	10,969	74,856
" smoked	cwt.	53,477	431,883	38,606	306,281
" smoked fillets	"	16,934	210,221	17,928	206,899
" green-salted	"	8,877	24,944	4,017	12,839
" dried	"	21,021	95,421	17,744	77,416
Hake and cusk, used fresh	"	8,011	15,039	6,696	10,466
" fresh fillets	"	–	–	650	4,000
" green-salted	"	35,871	70,063	39,171	80,995
" smoked fillets	"	4,042	39,686	2,478	22,317
" dried	"	18,867	71,223	25,728	105,904
" boneless	"	1,178	7,491	1,384	8,722
Pollock, used fresh	"	13,232	25,603	2,778	7,630
" green-salted	"	11,647	26,168	5,950	16,908
" smoked fillets	"	318	2,862	–	–
" dried	"	16,432	70,042	7,443	37,919
" boneless	"	44	282	14	140
Whiting, used fresh	"	101	637	69	487
Catfish, fresh	"	–	–	1,105	3,851
Halibut, used fresh	"	339,662	4,932,828	328,736	4,315,372
" smoked	"	94	1,410	34	670
" canned	cases	127	1,234	269	2,699
Flounders, brill, plaice, etc., used fresh	cwt.	16,950	80,870	12,856	61,415
Skate, used fresh	"	17,286	58,880	8,305	26,407
Soles, used fresh	"	11,691	74,798	22,789	127,928
Soles, fresh fillets	"	–	–	762	15,970
Herring, used fresh	"	133,699	276,056	196,339	351,058
" boneless	"	1,022	8,220	4	48
" canned	cases	18,007	82,442	9,476	41,743
" smoked	cwt.	139,362	475,781	63,767	248,268
" dry-salted	"	938,647	1,331,141	1,048,615	1,486,026
" pickled	brl.	40,106	258,670	33,086	185,758
" used as bait	"	196,250	422,654	182,646	385,337
" fertilizer	"	109,278	77,641	126,964	112,036
" oil	gal.	–	–	193,770	69,616
" meal	ton	–	–	2,702	137,334
" scales	cwt.	–	–	2,820	10,281
Mackerel, used fresh	"	57,981	235,448	41,393	204,943
" canned	cases	50	250	130	992
" smoked	cwt.	74	888	37	424
" salted	brl.	19,126	206,569	39,121	376,271
" used as bait	"	–	–	25	75
Sardines, canned	cases	217,592	980,474	240,091	888,336
" sold fresh and salted	brl.	124,199	194,794	116,695	158,239
Pilchards, used fresh	cwt.	36	357	2,017	3,482
" canned	cases	26,731	119,525	58,501	230,582
Pilchards, used as bait	brl.	2,950	7,375	1,737	4,719
" oil	gal.	1,898,721	734,078	2,673,876	982,786
" meal	ton	7,948	371,365	12,169	617,298
" fertilizer	"	533	24,021	–	–

5.—Quantities and Values of Sea Fish marketed during the calendar years 1926 and 1927—concluded.

Kinds of Fish.		1926.		1927.	
		Quantity.	Value.	Quantity.	Value.
			$		$
Alewives, used fresh	cwt.	13,119	22,148	11,393	15,745
" salted	brl.	12,773	71,917	12,969	57,542
" smoked	cwt.	9,619	52,880	3,090	11,341
" used as bait	brl.	400	400	–	–
Bass, used fresh	cwt.	522	7,346	546	10,043
Perch, used fresh	"	927	9,828	1,384	12,420
Salmon, used fresh	"	239,134	2,318,696	256,243	2,536,428
" canned	cases	2,066,818	16,367,808	1,363,235	11,680,727
" smoked	cwt.	917	15,425	571	10,081
" dry-salted	"	139,858	517,563	81,670	322,218
" mild cured	"	13,950	293,096	21,918	475,438
" pickled	"	2,575	44,118	1,000	9,519
" used as bait	"	893	2,662	93	232
" roe	"	1,533	4,059	1,147	1,660
Shad, used fresh	brl.	4,952	50,465	3,086	30,827
" salted	cwt.	72	2,469	26	732
Smelts, used fresh	"	91,762	1,165,122	73,623	1,044,615
Sturgeon, used fresh	"	293	5,928	387	8,342
Trout, used fresh	"	1,762	26,853	1,977	31,999
" canned	cases	15	120	96	719
" pickled	cwt.	–	–	30	225
Black cod, used fresh	"	3,978	38,959	7,798	64,680
" green-salted	"	39	500	19	207
" smoked	"	3,151	49,912	3,969	52,305
" smoked fillets	"	–	–	328	6,229
Ling cod, used fresh	"	–	–	49,802	400,560
" smoked	"	–	–	57	699
Red cod, etc., used fresh	"	3,891	26,013	4,436	22,479
Albacore, used fresh	"	1,523	12,491	3,362	25,941
Caplin, used fresh	brl.	5,311	7,635	1,626	3,299
Eels, used fresh	cwt.	1,925	19,393	1,374	13,414
Octopus, used fresh	"	379	3,052	313	2,241
Oulachons, used fresh	"	405	2,086	486	2,800
Squid, used as bait	brl.	21,933	59,329	3,176	10,065
Swordfish, used fresh	cwt.	12,936	207,248	7,299	120,692
Tom cod, used fresh	"	20,239	66,889	22,794	97,595
Mixed fish, used fresh	"	9,801	38,008	9,795	43,531
Clams and quahaugs, used fresh	brl.	23,736	80,615	18,004	57,174
" canned	cases	30,370	188,272	38,826	217,113
Abalone, canned	"	–	–	433	6,062
Cockles, used fresh	cwt.	76	418	293	1,100
Crabs, used fresh	"	9,389	63,295	7,467	59,107
" canned	cases	–	–	483	9,730
Lobsters, in shell	cwt.	91,304	2,106,437	68,907	1,979,059
" meat	"	49	4,410	114	8,574
" canned	cases	123,519	3,745,187	113,937	3,393,098
" tomalley	"	2,251	27,638	3,549	45,445
Oysters, used fresh	brl.	22,255	209,378	21,650	197,781
Scallops, shelled	gal.	45,897	148,241	76,126	212,772
" canned	cases	335	3,685	261	5,160
Shrimps, used fresh	cwt.	664	13,125	842	16,592
Winkles, used fresh	"	4,256	12,358	2,141	4,870
Dulse, dried	"	1,076	14,540	665	7,965
Tongues and sounds, pickled or dried	"	1,120	13,355	454	4,215
Seal skins, fur	No.	2,824	29,550	1,476	15,805
" hair	"	3,723	13,915	53,306	62,883
Porpoise skins	"	2	24	1	10
Whalebone and meal	ton	340	9,633	345	9,560
Whale fertilizer	"	666	36,630	651	39,060
Cod liver oil, crude	gal.	201,799	74,987	214,024	92,528
Seal oil	"	8,265	3,526	67,503	23,233
Porpoise oil	"	140	49	60	30
Whale oil	"	468,206	223,864	437,967	192,868
Fish oil	"	295,946	121,396	397,752	149,565
Fish glue	"	13,600	16,320	10,909	11,078
Fish meal	ton	3,300	226,110	5,013	287,219
Fish fertilizer	"	1,306	45,957	285	7,380
Fish skins and bones	cwt.	13,369	21,310	9,799	17,794
Fish offal	ton	6,407	17,577	8,801	32,772
Other products		–	15,358	–	7,183
Total		–	**48,959,585**	–	**41,921,126**

6.—Quantities and Values of Inland Fish marketed during the calendar years 1926 and 1927.

Kinds of Fish.		1926.		1927.	
		Quantity.	Value.	Quantity.	Value.
			$		$
Alewives, fresh	cwt.	356	1,068	264	792
" salted	brl.	134	1,206	132	1,188
Bass	cwt.	684	10,729	373	5,750
Carp	"	12,371	90,919	12,758	94,282
Catfish	"	6,601	56,410	8,208	75,765
Eels	"	22,541	212,166	14,552	126,518
Goldeyes, fresh	"	4,542	18,683	3,864	16,794
" smoked	"	3,863	67,108	5,678	99,176
Herring, fresh	"	52,608	306,314	63,201	330,593
Maskinonge	"	62	1,296	107	2,426
Mixed fish	"	70,575	332,340	43,694	184,956
Mullets	"	21,562	46,365	15,906	33,885
Perch, fresh	"	29,571	220,327	33,189	260,267
Pickerel or doré	"	126,086	1,385,856	140,019	1,347,589
Pickerel, blue	"	30,385	182,310	31,173	187,038
Pike	"	72,520	407,181	70,473	356,992
Salmon	"	2,120	43,655	1,939	28,760
Saugers, fresh	"	–	–	2,461	13,348
Shad	"	1,752	16,509	1,320	11,461
Smelts	"	549	9,063	9,139	72,715
Sturgeon	"	4,905	142,639	4,401	125,268
" caviar	lb.	6,913	10,877	6,573	10,110
Trout, fresh	cwt.	76,935	1,024,223	89,904	1,364,351
Tullibee, fresh	"	101,465	645,765	121,644	632,425
" smoked	"	30	180	60	725
Whitefish, fresh	"	190,644	2,167,865	185,664	2,192,738
Total		–	**7,401,048**	–	**7,575,912**

7.—Yield of the Fisheries of Canada, compared as to Quantity and Value, for 1926 and 1927. ("000" omitted).

Kinds of Fish.	Actual value, 1927.	Value at prices of 1926.	Actual value, 1926.	Increase (+) or decrease (−)	Due to higher (+) or lower (−) prices.	Due to larger (+) or smaller (−) quantities.
	$	$	$	$	$	$
Salmon	15,065	13,860	19,607	−4,542	+1,205	− 5,747
Lobsters	5,426	5,489	5,883	− 457	− 63	− 394
Cod	4,882	5,063	6,995	−2,113	− 181	− 1,932
Halibut	4,318	4,777	4,935	− 617	− 459	− 158
Herring	3,358	3,640	3,239	+ 119	− 282	+ 401
Whitefish	2,193	2,111	2,168	+ 25	+ 82	− 57
Pilchards	1,839	1,773	1,257	+ 582	+ 66	+ 516
Haddock	1,484	1,490	1,755	− 271	− 6	− 265
Trout	1,397	1,229	1,051	+ 346	+ 168	+ 178
Pickerel or doré	1,348	1,539	1,386	− 38	− 191	+ 153
Smelts	1,117	1,053	1,174	− 57	+ 64	− 121
Sardines	1,046	1,183	1,175	− 129	− 137	+ 8
Tullibee	633	774	646	− 13	− 141	+ 128
Mackerel	583	609	443	+ 140	− 26	+ 166
Pike	357	396	407	− 50	− 39	− 11
Clams and quahaugs	274	286	269	+ 5	− 12	+ 17
Perch	273	261	230	+ 43	+ 12	+ 31
Hake and cusk	232	239	203	+ 29	− 7	+ 36
Scallops	218	253	152	+ 66	− 35	+ 101
Oysters	198	203	209	− 11	− 5	− 6
Pickerel, blue	187	187	182	+ 5	–	+ 5
Soles	144	160	75	+ 69	− 16	+ 85
Sturgeon	143	146	159	− 16	− 3	− 13
Eels	140	150	232	− 92	− 10	− 82
Black cod	123	141	89	+ 34	− 18	+ 52
Swordfish	121	117	207	− 86	+ 4	− 90
Goldeyes	116	84	86	+ 30	+ 32	− 2
Other articles of the fisheries	2,282	2,280	2,147	+ 135	+ 2	+ 133
Total	**49,497**	**49,493**	**56,361**	**−6,864**	**+ 4**	**− 6,868**
				p.c.	p.c.	p.c.
Increase or decrease	–	–	–	− 12·2	–	− 12·2

8.—Number of Fish-Canning and Curing Establishments, by Provinces, 1926 and 1927.

Classification.	P.E.I.	N.S.	N.B.	Que.	B.C.	Total for Canada.
1926.	No.	No.	No.	No.	No.	No.
Lobster canneries	137	133	128	57	–	455
Salmon canneries	–	–	–	3	76	79
Clam canneries	3	7	6	–	3	19
Sardine and other fish canneries	–	2	2	–	–	4
Fish-curing establishments	6	97	51	34	63	251
Reduction plants	–	4	3	–	16	23
Total	**146**	**243**	**190**	**94**	**158**	**831**
1927.						
Lobster canneries	133	124	124	57	–	438
Salmon canneries	–	–	–	4	77	81
Clam canneries	2	6	7	–	–	15
Sardine and other fish canneries	1	3	2	–	–	6
Fish-curing establishments	1	85	34	29	50	199
Reduction plants	–	7	5	–	22	34
Total	**137**	**225**	**172**	**90**	**149**	**773**

9.—Materials Used and Value of Products of Fish-Canning and Curing Establishments, 1923-1927.

Materials and Products.	1923.	1924.	1925.	1926.	1927.
	$	$	$	$	$
Materials used—					
Fish	11,453,694	11,480,416	13,953,645	16,692,352	14,379,521
Salt	323,945	401,820	389,054	356,267	360,056
Containers	3,458,947	3,801,699	3,878,633	4,652,025	3,290,932
Other	94,607	405,397	459,354	333,485	334,337
Total	**15,331,193**	**16,089,332**	**18,680,686**	**22,034,129**	**18,364,846**
Products—					
Fish marketed for consumption, fresh	5,846,102	6,637,871	6,489,183	7,348,820	7,123,490
Fish canned, cured or otherwise prepared	19,528,661	20,000,091	23,891,809	28,841,944	23,961,119
Total	**25,374,763**	**26,637,962**	**30,380,992**	**36,190,764**	**31,084,609**

Capital and Employees.—In 1927, the total capital invested in the fisheries was as follows:—(a) in vessels, boats, nets, weirs, traps, wharves, ice-houses, etc., used in the primary operations of capturing the fish, $31,851,979, of which $26,785,430 was invested in the sea fisheries and $5,066,549 in the inland fisheries; (b) in fish-canning and curing establishments (land, buildings, machinery, supplies on hand, cash and operating accounts), $24,454,482—grand total $56,306,461. The number of employees engaged in the primary operations of fishing was 63,415 in 1927, and in canning and curing establishments, 16,697, a total of 80,112. The total salaries and wages bill in canneries and fish-curing establishments was $5,373,951. Tables **10** and **11**, herewith, show the items included in the above totals, with comparative figures for 1926, while Table **12** analyses the salaries, wages and earnings of the employees in canneries, etc.

10.—Number and Capital Value of Fishing Vessels, Boats, Nets, Traps, etc., used in the Fisheries of Canada, 1926 and 1927.

Equipment.	1926.		1927.	
	Number.	Value.	Number.	Value.
		$		$
Sea Fisheries—				
Steam trawlers	14	990,000	17	1,240,000
Steam fishing vessels	8	159,500	11	178,000
Sailing and gasolene vessels	1,398	6,454,422	1,561	8,017,679
Boats (sail and row)	14,138	615,936	14,559	678,199
Boats (gasolene)	15,622	5,328,186	15,944	5,434,057
Carrying smacks and scows	529	516,783	664	566,293
Gill nets, seines, trap and smelt nets, etc	125,899	4,507,399	124,590	5,178,239
Weirs	470	604,750	455	586,515
Tubs of trawls	18,207	300,374	18,129	307,217
Hand lines	69,434	120,321	67,577	132,710
Crab traps	4,215	15,445	6,045	22,735
Eel traps	–	–	100	400
Scallop gear	45	3,420	78	8,170
Oyster plant and equipment	1	26,000	1	26,000
Lobster traps	1,613,974	1,926,793	1,659,784	1,995,920
Fishing piers and wharves	2,623	977,820	2,511	954,820
Freezers and ice-houses	567	448,401	573	450,901
Small fish and smoke houses	7,331	1,026,824	7,313	1,005,825
Total value, Sea Fisheries	–	**24,022,374**	–	**26,785,430**
Inland Fisheries—				
Steam vessels or tugs	140	1,038,674	138	1,037,353
Boats (sail and row)	3,828	189,616	4,020	180,480
Boats (gasolene)	1,444	778,170	1,504	847,425
Scows	3	2,500	2	5,000
Gill nets	–	1,491,831	–	1,584,005
Seines	131	25,018	144	21,925
Pound nets	1,322	624,820	1,240	531,622
Hoop nets	1,185	34,596	996	34,154
Dip or roll nets	52	605	57	691
Lines	3,033	59,697	2,668	20,112
Weirs	1,308	83,222	1,442	124,487
Eel traps	25	100	–	–
Fish wheels	3	450	7	1,050
Spears	140	990	123	910
Fishing piers and wharves	462	195,698	469	167,273
Freezers and ice-houses	945	451,170	955	464,592
Small fish and smoke houses	292	39,082	356	45,470
Total value, Inland Fisheries	–	**5,016,239**	–	**5,066,549**
Fish-Canning and Curing Establishments—				
Lobster canneries	455	1,477,374	438	1,419,604
Salmon canneries	79	16,367,870	81	11,595,454
Clam canneries	19	226,012	15	99,417
Sardine and other fish canneries	4	1,253,424	6	1,365,674
Fish-curing establishments	251	7,438,396	199	7,009,983
Reduction plants	23	2,104,995	34	2,964,350
Total of Fish-Canning and Curing Establishments	**831**	**28,868,071**	**773**	**24,454,482**
Grand Total Capital Invested in Fisheries	–	**57,906,684**	–	**56,306,461**

11.—Number of Persons employed in the Fisheries of Canada, 1925-1927.

Employed in	Sea Fisheries.			Inland Fisheries.		
	1925.	1926.	1927.	1925.	1926.	1927.
	No.	No.	No.	No.	No.	No.
Steam trawlers	222	249	311	–	–	–
Vessels	6,512	7,660	7,808	736	729	732
Boats	38,379	40,122	39,672	8,055	8,193	8,320
Carrying smacks	1,093	737	804	4	6	4
Fishing, not in boats	–	–	1,743	3,168	3,675	4,021
Total	**46,206**	**48,768**	**50,338**	**11,963**	**12,603**	**13,077**

Employed in	Fish-Canning and Curing Establishments.					
	1926.			1927.		
	Male.	Female.	Total.	Male.	Female.	Total.
	No.	No.	No.	No.	No.	No.
Lobster canneries	2,887	3,614	6,501	2,790	3,390	6,180
Salmon canneries	4,439	2,355	6,794	4,288	2,438	6,726
Clam canneries	82	201	283	100	127	227
Sardine and other fish canneries	340	142	482	293	153	446
Fish-curing establishments	2,511	321	2,832	2,257	244	2,501
Reduction plants	503	13	516	602	15	617
Total	**10,762**	**6,646**	**17,408**	**10,330**	**6,367**	**16,697**
Grand Total in all Fisheries	**72,133**	**6,646**	**78,779**	**73,745**	**6,367**	**80,112**

12.—Employees and Salaries and Wages in Fish-canning and Curing Establishments, 1920-1927.

Years.	On Salaries.		On Wages.		Contract and Piece-Workers.		Total.	
	No.	$	No.	$	No.	$	No.	$
1920	651	759,176	13,137	3,180,701	4,711	916,413	18,499	4,856,290
1921	487	551,330	10,534	2,023,040	3,083	399,016	14,104	2,973,386
1922	614	682,535	11,848	2,358,780	4,115	600,415	16,577	3,641,730
1923	585	681,101	11,265	2,443,971	3,597	644,842	15,447	3,769,914
1924	574	755,631	10,583	2,588,717	4,379	890,413	15,536	4,234,761
1925	632	806,418	10,687	3,166,045	4,953	998,704	16,272	4,971,167
1926	546	733,760	11,579	3,807,533	5,283	1,081,544	17,408	5,622,837
1927	639	871,211	11,343	3,769,791	4,715	732,949	16,697	5,373,951

Trade.—For reasons already noted, the domestic consumption of fish is relatively small in Canada, and the trade depends largely upon foreign markets. Perhaps 60 p.c. of the annual capture is an average export, of which the United States takes two-fifths and Great Britain one-sixth. In the calendar year 1927, domestic exports amounted to $34,814,448, of which $14,613,034 went to the United States and $5,408,547 to the United Kingdom. In the fiscal year ended 1928, $14,038,240 went to the United States and $5,448,161 to the United Kingdom. The most important single export is canned salmon (to Great Britain and European markets), followed closely by cod, dry-salted (to the West Indies, South America, etc.).

For fresh fish, especially whitefish and lobsters, the United States is the chief market. Canadian imports of fish in 1928 amounted to $3,776,237. A general review of the import and export trade in fish for 27 years past is given in Table **13**, whilst Table **14** gives a comparative record of exports by countries during 1926 and 1927. Table **15** shows the leading items of export for 1926 and 1927. For a complete analysis of imports and exports, as well as of production, see the annual report "Fisheries Statistics", issued by the Dominion Bureau of Statistics.

13.—Value of Exports and Imports of Fish and Fish Products, fiscal years 1902-1928.

NOTE.—In this and the two following tables Exports include seal skins and fish oils, and Imports include turtles, whalebone, shells, mother of pearl, seal skins, fish oils and ambergris, in addition to Fishery Products as shown in Tables **12** and **13** of the External Trade section of this volume.

Years.	Exports, fisheries, domestic.	Imports of fish for home consumption.		Years.	Exports, fisheries, domestic.	Imports of fish for home consumption.	
		Dutiable.	Free.			Dutiable.	Free.
	$	$	$		$	$	$
1902	14,143,294	620,706	525,459	1916	22,377,977	895,371	695,702
1903	11,800,184	659,717	743,703	1917	24,889,253	1,347,511	1,128,768
1904	10,759,029	734,800	850,945	1918	32,602,151	1,039,585	1,884,041
1905	11,114,318	752,558	751,402	1919	37,137,072	1,054,848	2,128,970
1906	16,025,840	814,540	1,234,563	1920	42,227,996	2,605,379	1,446,493
1907[1]	10,362,142	735,045	924,046	1921	33,615,119	2,416,152	1,876,303
1908	13,867,367	838,037	1,103,649	1922	29,578,392	2,172,850	996,763
1909	13,319,664	784,176	925,173	1923	27,816,935	2,066,300	899,531
1910	15,663,162	952,522	820,183	1924	30,925,769	1,878,336	648,696
1911	15,675,544	1,175,072	820,019	1925	33,967,009	2,064,222	997,059
1912	16,704,678	1,261,096	1,148,522	1926	37,487,517	1,949,269	641,240
1913	16,336,721	1,608,663	910,923	1927	36,365,454	2,347,890	909,188
1914	20,623,560	1,558,663	773,109	1928	35,660,287	2,595,588	1,180,649
1915	19,687,068	1,155,186	701,112				

[1] Nine months.

14.—Exports of the Fisheries, the Produce of Canada, by Principal Countries, in the fiscal years 1926 and 1927.

Exports to—	1926.	1927.	Exports to—	1926.	1927.
	$	$		$	$
British Empire.			Foreign Countries.		
United Kingdom	7,172,487	5,577,378	Belgium	351,308	317,755
Africa, South, British	289,036	232,373	Brazil	492,644	382,429
Africa, West, British	135,801	151,104	Chile	185,505	160,402
Bermuda	50,958	46,576	China	1,306,912	651,697
British India	17,107	23,437	Cuba	971,937	973,950
Straits Settlements	121,542	109,922	Denmark	124,917	156,307
British Guiana	137,830	163,835	France	2,192,378	1,211,360
Barbados	86,957	87,837	Germany	261,075	295,251
Jamaica	850,553	851,642	Greece	27,819	98,204
Trinidad and Tobago	534,905	424,013	Italy	1,257,242	1,583,268
Hong Kong	322,761	401,470	Japan	1,623,034	1,437,237
Newfoundland	66,068	25,748	Mexico	139,725	164,423
Australia	1,674,851	2,131,364	Netherlands	69,025	117,538
Fiji	59,662	67,114	Panama	75,472	76,555
New Zealand	531,083	559,488	Portugal	77,250	95,625
			San Domingo	101,886	113,505
			Sweden	255,404	317,782
			United States	13,516,510	14,612,369
			Porto Rico	812,958	835,739
Total British Empire	12,304,859[1]	11,086,627[1]	Total Foreign Countries	24,487,804[1]	24,166,793[1]
			Grand Total of Exports	**37,487,517**	**36,365,454**

[1] Includes other countries.

15.—Exports of the Fisheries, compared as to Quantity and Value, for the fiscal years 1926 and 1927. ("000" omitted).

Kinds of Fish.	Actual value, 1927.	Value at prices of 1926.	Actual value, 1926.	Increase (+) or decrease (−).	Due to higher (+) or lower (−) prices.	Due to larger (+) or smaller (−) quantities.
	$	$	$	$	$	$
Alewives, salted	107	104	96	+ 11	+ 3	+ 8
Bait fish	42	33	38	+ 4	+ 9	− 5
Codfish, boneless canned and preserved	191	194	192	− 1	− 3	+ 2
Codfish, dried	4,769	5,634	5,246	− 477	− 865	+ 388
Codfish, fresh and frozen	116	118	78	+ 38	− 2	+ 40
Codfish, green salted (pickled)	300	316	365	− 65	− 16	− 49
Codfish, smoked	283	275	205	+ 78	+ 8	+ 70
Clams, fresh and canned	177	204	162	+ 15	− 27	+ 42
Eels	197	185	182	+ 15	+ 12	+ 3
Haddock, dried	208	262	234	− 26	− 54	+ 28
Haddock, fresh and frozen	41	37	24	+ 17	+ 4	+ 13
Haddock, smoked	206	226	199	+ 7	− 20	+ 27
Halibut, fresh and frozen	469	410	431	+ 38	+ 59	− 21
Herring, lake, fresh and frozen	307	148	202	+ 105	+ 159	− 54
Herring, sea, canned	439	450	294	+ 145	− 11	+ 156
Herring, sea, fresh and frozen	314	382	288	+ 26	− 68	+ 94
Herring, sea, pickled	183	185	256	− 73	− 2	− 71
Herring, sea, smoked	303	370	413	− 110	− 67	− 43
Herring, sea, dry salted	1,524	1,509	2,405	− 881	+ 15	− 896
Lobsters, canned	3,669	4,226	4,037	− 368	− 557	+ 189
Lobsters, fresh	1,397	1,333	1,256	+ 141	+ 64	+ 77
Mackerel, fresh and frozen	151	159	291	− 140	− 8	− 132
Mackerel, pickled	367	269	375	− 8	+ 98	− 106
Pilchards, canned	85	90	112	− 27	− 5	− 22
Pollock, hake and cusk, dried	301	369	267	+ 34	− 68	+ 102
Salmon, canned	9,717	9,377	10,467	− 750	+ 340	− 1,090
Salmon, dry salted (chum)	569	599	695	− 126	− 30	− 96
Salmon, fresh and frozen	1,054	958	1,117	− 63	+ 96	− 159
Salmon, pickled	408	337	527	− 119	+ 71	− 190
Salmon or lake trout	441	409	418	+ 23	+ 32	− 9
Sea fish, other, fresh	100	83	85	+ 15	+ 17	− 2
Smelts	1,115	1,102	1,050	+ 65	+ 13	+ 52
Swordfish, fresh	177	189	77	+ 100	− 12	+ 112
Tullibee	459	464	324	+ 135	− 5	+ 140
Whitefish	1,406	1,457	1,375	+ 31	− 51	+ 82
Fish, other, fresh and frozen	2,541	2,908	2,569	− 28	− 367	+ 339
Fish offal or refuse	255	227	94	+ 161	+ 28	+ 133
Oil, cod liver	182	158	181	+ 1	+ 24	− 23
Oil, fish, other	701	823	175	+ 526	− 122	+ 648
Oil, seal	7	7	11	− 4	−	− 4
Oil, whale	168	211	242	− 74	− 43	− 31
Seal skins, undressed	54	66	85	− 31	− 12	− 19
Other articles of the fisheries	865	898	348	+ 517	− 33	+ 550
Total	**36,365**	**37,761**	**37,488**	**− 1,123**	**− 1,396**	**+ 273**
				p.c.	p.c.	p.c.
Increase or decrease	−	−	−	− 2·99	− 3·72	+ 0·73

CHAPTER XII.—MINES AND MINERALS.

An article on the general geology of Canada, referring to the chief mineral-bearing areas of the Dominion, will be found at pp. 16-27 of the present edition of the Year Book. This is followed by an account of the chief discoveries and investigations of mineral-bearing ores in 1927, at pp. 27-35; similar articles for earlier years were published in previous editions. These articles furnish references to more detailed sources of information in the publications of the Dominion and provincial Governments, or in the scientific journals.

The Mines and Minerals chapter of the Year Book is divided into six sections:—(1) a sketch of the administration of mineral lands and mining laws, (2) a summary of general production, (3) the industrial organization of the mining industries, (4) production of the metallic minerals, (5) production of the non-metallic minerals, (6) production of clay products and structural materials.

For more detailed information on the mineral production of Canada the reader is referred to the Annual Report on the Mineral Production of Canada, issued by the Dominion Bureau of Statistics.

Section 1.—Mineral Lands Administration and Mining Laws.

The mineral lands of Canada, like other Crown lands, are administered by either the Dominion or the provincial Governments. The Dominion Government at the time of writing administers the mineral lands of the three Prairie Provinces, as well as those in the Railway Belt and the Peace River Block in British Columbia. All other mineral lands, including those of the Maritime Provinces, Quebec, Ontario and the greater part of British Columbia, are owned by the provinces. Furthermore, an agreement has been reached between the Dominion Government and the Government of British Columbia for the transfer of the Dominion Crown lands of British Columbia to that province. Negotiations with a similar end in view are in progress with the province of Alberta, where enormous areas of coal lands exist, and are in prospect with Manitoba and Saskatchewan.

Subsection 1.—Dominion Mining Laws and Regulations.

Dominion lands to which these regulations apply are those administered by the Mining Lands Branch, Department of the Interior, within the provinces of Manitoba, Saskatchewan, Alberta, Yukon Territory and the Northwest Territories. Some of these regulations apply also to the Railway Belt in British Columbia and to a defined area in British Columbia. The total area administered under the Dominion mining laws exceeds 2,250,000 square miles.

The title issued for Dominion lands, the property of the Dominion Government, in the western provinces and territories of Canada, reserves to the Crown the mines and minerals which may be found on or under such lands, together with the right of operation.

Minerals on vacant Dominion lands, also on lands disposed of as above, may be acquired by lease for a fixed period, usually 21 years, renewable for further periods of like duration, on the following terms and conditions:—

Coal.—The maximum area which may be granted under lease to one applicant is 2,560 acres, and the length of the location must not exceed four times its breadth. Rental $1 an acre per annum, and royalty on coal disposed of, 5 cents per ton. In

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unsurveyed territory, the location must be staked by the applicant personally, and personal application must be made to the mining recorder for a lease. Such location must be marked on the ground by two legal posts, one at each end of the longest dimension, and a line must be marked out joining the posts. In surveyed territory, personal application only is necessary. The lease conveys the coal-mining rights only, but surface rights necessary for purposes of operation may be obtained by arbitration in the case of lands already disposed of, or under lease from the Crown if vacant. There is no limit to the area which may be acquired by assignment.

Petroleum and Natural Gas.—The maximum area which may be acquired under application by one applicant is 1,920 acres, but any area may be acquired by assignment. The location shall be personally staked and applied for in the same manner as coal, and drilling operations shall be commenced within 15 months of the date of the lease. The rental for the first year is 50 cents an acre, but an applicant may obtain a prospecting permit for a period of one year on payment of rental at 10 cents an acre and a cash deposit of 40 cents an acre, on condition of actual prospecting operations being conducted on the location during the year to an amount equivalent to the cash deposit. If evidence of the prescribed expenditure is submitted and accepted, the amount of the cash deposit shall be returned to the permittee upon termination of the permit, or he may be granted credit therefor on account of rental. If, however, the required expenditure is not incurred, the amount of the cash deposit shall be subject to forfeiture. Rental for subsequent years is at the rate of $1 an acre, but if drilling operations are conducted, the expenditures so incurred may be accepted in satisfaction of rentals for the second and third years and, under certain conditions, for the fourth and fifth years, until discovery of oil is made. Twenty thousand acres may be grouped by a lessee and represented by one drilling outfit. Royalty varying from 2½ p.c. to 10 p.c. of the value of the product may be imposed. In the Northwest Territories a preliminary permit may be obtained to prospect an area of 2,560 acres, rental payable on one-half of the area only. Upon discovery of oil being made, a final lease of one-half the area acquired, to be selected by the permittee, will be issued.

Placer.—Claims 500 feet long and from 1,000 to 2,000 feet wide, according to location, may be staked out and acquired by any person more than 17 years of age. Claims to be marked by two legal posts, one at each end, and the line joining them marked. Creek claims are staked along the base-line of the creek, and extend 1,000 feet on each side. River claims are 500 feet on one side of the river, and extend back 1,000 feet. Other claims are staked parallel to the creek or river on which they front, 500 feet long by 1,000 feet. Expenditure in development of each claim to be incurred and proved each year, $200 in the Yukon Territory and $100 elsewhere. Royalty 2½ p.c.

Alkali.—Comprising natural surface accumulations of soluble mineral salts and associated marls, occurring at or near the surface. Area which may be leased, 1,920 acres. Term of lease, 20 years, renewable. Fee, $10 for the issue of a lease. Rental, 25 cents an acre per annum. The lessee shall expend in actual development or improvements on the property leased not less than $10,000 during the first three years of the term of the lease. Not less than $2,500 shall be so expended during the first and during the second years of the term. Royalty, from 12½ cents to 25 cents a ton of salts shipped.

Carbon-Black.—The recorded owner of a lease of natural gas rights acquired under the regulations may obtain a permit to use the gas for the production of carbon-black, if the location affected is situated in an isolated part of the country where there is no market for the sale of such gas. The permittee must expend $15,000 during each of the first and second years of the term of the permit in the erection and completion of an efficient plant. Gasolene content, if sufficient, must first be extracted. Royalty, 5 p.c. of the value of the gas at the well. Minimum value of such gas, 2 cents per 1,000 cubic feet.

Quarrying.—Dominion lands containing limestone, granite, slate, marble, gypsum, marl, gravel, sand, clay or building stone, may be leased at an annual rental of $1 an acre. The maximum area to one applicant shall be 40 acres. A railway company or municipality, requiring material for construction or maintenance of railway or municipal works, may acquire more than one location. The location must be staked out, if situated in unsurveyed territory.

Dredging.—A dredging lease conveys the exclusive right to sub-aqueous mining and dredging in a specified area of a river bed to be described, the location to be 5 miles or less in the western provinces and territories and 10 miles or less in the Yukon. The term of the lease is 15 years in the Yukon and 20 years elsewhere, renewable. Rental per annum in the Yukon, $100 per mile the first year, and for each subsequent year, $10 per mile. Outside the Yukon, $50 per mile the first year, and $10 for each subsequent year. Royalty, 2½ p.c. in the Yukon, and elsewhere 2½ p.c. on the value of products exceeding $10,000. Dredge to be installed within three years from the date of the lease in the Yukon, and within one year from such date elsewhere. Outside the Yukon, expenditures in prospecting and development work may be accepted in satisfaction of rental for a limited term of years, and, for this purpose, operations may be consolidated over an unbroken extent of a river not exceeding 15 miles.

Quartz.—"Mineral" under this heading means all deposits of gold, silver, and all naturally occurring useful minerals other than placer deposits, peat, coal, petroleum, natural gas, bitumen and oil shales.

Under the new regulations, effective April 1, 1929, any prospector or locator of a mineral claim, whether an individual, mining partnership or a company, must first be the holder of a miner's license, the fee for which is $5 for an individual, from $5 to $20 for mining partnerships, and larger amounts for mining companies proportionate to their capitalization. A licensee may stake out three claims per annum for himself, and six more for two other licensees, not exceeding nine in all, in any mining division, or double these numbers in the Northwest Territories. A mineral claim shall be rectangular and marked by a post at each corner—maximum area 51.65 acres, being 1,500 feet square. Entry is granted by mining recorder, fee $5 for a claim located by a licensee on his own license, and $10.00 if located on behalf of another licensee. Grant is renewable from year to year on 40 days' work being done on the location each year. All work done is subject to inspection. When 200 days' work has been done and confirmed, discovery of mineral in place shown to have been made, a survey made by a Dominion land surveyor at grantee's expense and certain other requirements complied with, a lease is issued for a term of 21 years, renewable, the rental for the full term being $50. The cost of the survey, reckoned as 30 days' (and in the Northwest Territories 40 days') work, may be counted as work done on the claim. A maximum of

nine claims may be grouped for purposes of representation work. When the profits of a mine exceed $10,000 in any calendar year, there is a royalty of from 3 to 6 p.c. or higher, proportionate to the profits made.

For copies of any of the regulations above referred to, application may be made to the Director, Mining Lands Branch, Dominion Lands Administration, Interior Department, Ottawa.

Subsection 2.—Provincial Mining Laws and Regulations.

Nova Scotia.—All minerals in Nova Scotia, except limestone, gypsum and building materials, are the property of the Crown in the right of the Province of Nova Scotia. They are dealt with under the provisions of the Mines Act (c. 23, R.S.N.S., 1923), and amending Act of 1927 (c. 17), and are administered by the Minister of Public Works and Mines, at whose office in the Parliament Buildings, Halifax, all records of mining titles are kept.

The chief mineral product of Nova Scotia is coal, which is subjected to a royalty of 12½ cents per long ton. Coal used in mining operations, or used for domestic purposes by workmen employed about the mine, is exempted from royalty.

Licenses to search for mineral, good for a year, are issued at a nominal fee. More permanent holding is obtained by lease, which, in the case of minerals other than gold and silver, is granted for 20 years (subject to payment of an annual rental and the performance of work), the lease carrying the right to three successive renewals of 20 years each. A lease for gold and silver is given for 40 years, subject to a small annual rental and performance of work.

Other important minerals of Nova Scotia are gold, salt, lead, zinc, copper, diatomaceous earth, manganese and antimony.

Full information concerning minerals and mining laws may be obtained by writing the Department of Public Works and Mines at the above address.

New Brunswick.—In grants of Crown land since about the year 1805, all mines and minerals are reserved to the Crown and regarded as property separate from the soil. Prior to this time, most of the grants reserved only gold, silver, copper, lead and coals. Royalties levied are 10 cents per long ton on coal and 5 p.c. on petroleum and natural gas. Prospectors must obtain a license which costs $10 and is good for the calendar year. It entitles the prospector to stake up to 10 claims of 40 acres each. Claims must be registered within 30 days and 25 days' work done on each claim within the year, after which a mining license, renewable annually on the payment of $10 per claim, will be granted.

Quebec.—The mining lands of Quebec are administered by the Department of Colonization, Mines and Fisheries, subject to the provisions of c. 80 of the Revised Statutes of Quebec, 1925.

In townships the Crown retains full mining rights on lands granted subsequently to July 24, 1880, and, in the case of gold and silver, on lands granted previous to that date. All mining rights belong to the Crown in most of the seigneuries.

Mining lands up to 200 acres in extent may be acquired in two ways:—

(1) By purchase at public auction from the Minister as a mining concession, for which the price is not less than $5 per acre for metals and $3 for non-metals.

(2) By occupation and working under a mining license. In this case, after obtaining a miner's certificate good for the calendar year at a fee of $10, claims of 40 acres may be staked up to a total 200 acres. Claims must be recorded and 25

days' work per claim done within 6 months, when a mining license is granted upon payment of $10.50 per acre. The license is renewable annually for the same fees.

Mining operators must make annual returns to the Minister. Taxes are payable on annual profits at rates graduated up from 3 p.c. A mining inspector is appointed in each mining division for the administration of the mining laws and regulations.

Ontario.—Ontario owns and administers for mining purposes, through her Department of Mines, all the Crown lands within her boundaries, except Indian lands, which are under the Dominion Government. Mining lands are subject to the provisions of the Mining Act, c. 45, R.S.O. 1927. Title is a grant in fee simple, except in forest reserves, where the lands are leased. A resident mining recorder is appointed for each mining division created in the mineral areas. There is a tax on mining lands of five cents per acre per annum. Other taxation is on the net profits, the rate being 3 p.c. up to $1,000,000; 5 p.c. from $1,000,000 to $5,000,000, etc. The first $10,000 of profit is exempt. There is no apex law, all claim boundaries extending vertically downwards. Disputes are settled by the Recorder, or, on appeal, by a specially constituted mining court.

A miner's license is necessary to stake out or acquire Crown lands for mining purposes; fee $5.00 per year for an individual; for companies, $100.00 on each million dollars capital. The holder may stake out for himself three claims in any and every mining division, and six additional for not more than two other license-holders. A mining claim in unsurveyed territory is a square of 20 chains to a side (40 acres) with lines N-S and E-W astronomically. Where land is subdivided into lots a claim may be an eighth, a quarter or a half lot, *i.e.*, up to 50 acres.

There are special provisions regarding petroleum, natural gas, coal and salt on the James Bay slope, where these substances may be searched for under authority of a boring permit. A total of 1920 acres may be taken up by an individual in blocks of 640 acres.

Manitoba.—Most of the public lands of Manitoba are held and administered by the Dominion Government. Mining lands and rights are secured by leasing from the latter through the Mining Lands Branch, Department of the Interior, after certain duties and requirements have been fulfilled, as per the preceding statement on Dominion mining laws and regulations.

The Legislative Assembly of Manitoba enacted "The Mines Act" (c. 128 of the Revised Statutes of Manitoba, 1913). In 1927 section 42 of this act was amended. In 1928 an order in council of the Provincial Government put into force "Rules under the Mines Act", which govern such things as ventilation, sanitation, care and use of explosives, protection and general mining operations. A Chief Inspector of Mines was appointed by the Province in November, 1928, to enforce these rules. In the spring of the same year a Department of Mines and Natural Resources had been created in the Province. A Minister of the Crown was named to administer the Department and a Commissioner of Mines appointed.

Dominion Mining Recording Offices are located at Winnipeg, The Pas, and Cold Lake. A representative of the Supervisory Mining Engineer, Department of the Interior, is stationed at The Pas, Manitoba.

Saskatchewan.—The natural resources of this province are administered by the Dominion Government, but the Saskatchewan Mines Act (c. 178, Revised Statutes of Saskatchewan, 1920, and amendments), provides for the competency of

mine managers and pit bosses, for the reporting of accidents and generally for the welfare and safety of those employed in the production of minerals. Other than those of the Dominion Government, no taxes or royalties are imposed upon the minerals produced in the province.

Alberta.—The natural resources of the province are administered by the Dominion Government and the leasing or disposal of mining lands or mining rights is administered under Dominion laws and regulations.

The Mines Act of the province of Alberta and regulations made thereunder make provision for the safe operation of mines in the province, applying to mines of coal, ironstone, shale, clay and other minerals. Operations must be under the control of officials who hold certificates granted after suitable examination. A staff of inspectors is provided to administer the regulations. Monthly reports of operations must be returned to the Minister.

The Mine Owner's Tax Act provides for the payment of a tax of 2 p.c. of the gross revenue from mining operations. The Mineral Taxation Act levies a tax of 3c. per acre per annum on lands held for the purpose of mineral exploitation. The Coal Sales Act requires that all coal mines shall be registered by name and all coal produced in Alberta sold under the registered name.

British Columbia.—The Department of Mines, organized under the provisions of c. 163, R.S.B.C., 1924, and amendments, administers the mineral lands of the province, and has charge of all matters relating to mining, including the Bureau of Mines and all offices established under the Bureau of Mines Act and all Government offices in connection with the mining industry.

The terms of the mining laws are favourable to the prospector, with small fees and rentals. On a lode mine of 51 acres an expenditure of $500 in work, which may be spread over 5 years, is required to obtain a Crown grant, while surface rights are obtainable at a figure in no case exceeding $5 per acre. Any person over the age of 18 and any joint stock company can obtain a "free miner's certificate" on payment of a fee, which for the individual is $5 per annum, while for the joint stock company it is either $50 or $100, depending on capitalization. Mineral claims located under the provisions of the Mineral Act must not exceed 1,500 feet square.

Section 2.—Summary of General Production.

Notwithstanding the rapid development of mineral production in Canada during recent years—the value of the annual output increased from $10,221,000 in 1886 to $145,635,000 in 1913 and $273,446,000 in 1928—the possibilities in the future are of even greater interest. For many years the natural difficulties of travel in the northland hindered the progress even of reconnaissance work, and a large part of Canada remained but very little explored. Nevertheless, sufficient was done to make known the main geological features, to indicate roughly the territories that would be found to be mineral-bearing, and to predict the character of the mineral resources in the different geological provinces. The development of the aeroplane during and since the war has provided an agent of improved and rapid transportation in regions where the canoe and dog team were the only other means available, while exploration and photography from the air are providing accurate knowledge and reliable maps of large regions formerly almost entirely unexplored. This applies particularly to the Canadian Shield, that large northern area where are exposed rocks of Precambrian age which have already proved immensely rich in mineral resources. In spite of the manner in which the search for minerals in this area has

been broadened and intensified in recent years, Canada today offers to the prospector the largest and most promising extent of mineral-bearing territory that anywhere remains unprospected. The opinion is often advanced that Canada is likely to become one the leading mineral-producing countries of the world, and considerable ground for this assumption is found in the fact that the Dominion contains 16 p.c. of the world's known coal resources, has greater asbestos and nickel deposits than any other country and ranks third in the production of gold, while the diversity of mineral endowment is indicated by the fact that the three main divisions, metallic, non-metallic and clay products and structural materials, include some 60 principal items, 22 of which had each in 1928 a production valued at $1,000,000 or over.

The mineral production of Canada has increased from $172,000,000 in 1921 to $273,446,000 in 1928, an increase of $100,000,000 or 59 p.c. in 7 years, a greater proportional increase than in any other major branch of production during that time. In view of the developments now taking place on properties with proven reserves of immense mineral wealth not yet developed to full production, it seems certain that the mineral production of Canada will continue to increase rapidly. The proportions which this production has already attained make it a very important factor in the expansion of the wealth and prosperity of the whole Dominion. Figures of total production fail to convey a correct impression of the magnitude of the industry, on account of the diversity of the product and of the units involved, while the varying prices attendant upon fluctuating market conditions vitiate comparisons on the value basis. As commodity prices reached a peak in 1920 and have subsequently fallen greatly, production computed in terms of value is not a fair basis for comparison. In spite of this, the total value of mineral production in 1928 exceeded by $45,000,000 the record of 1920.

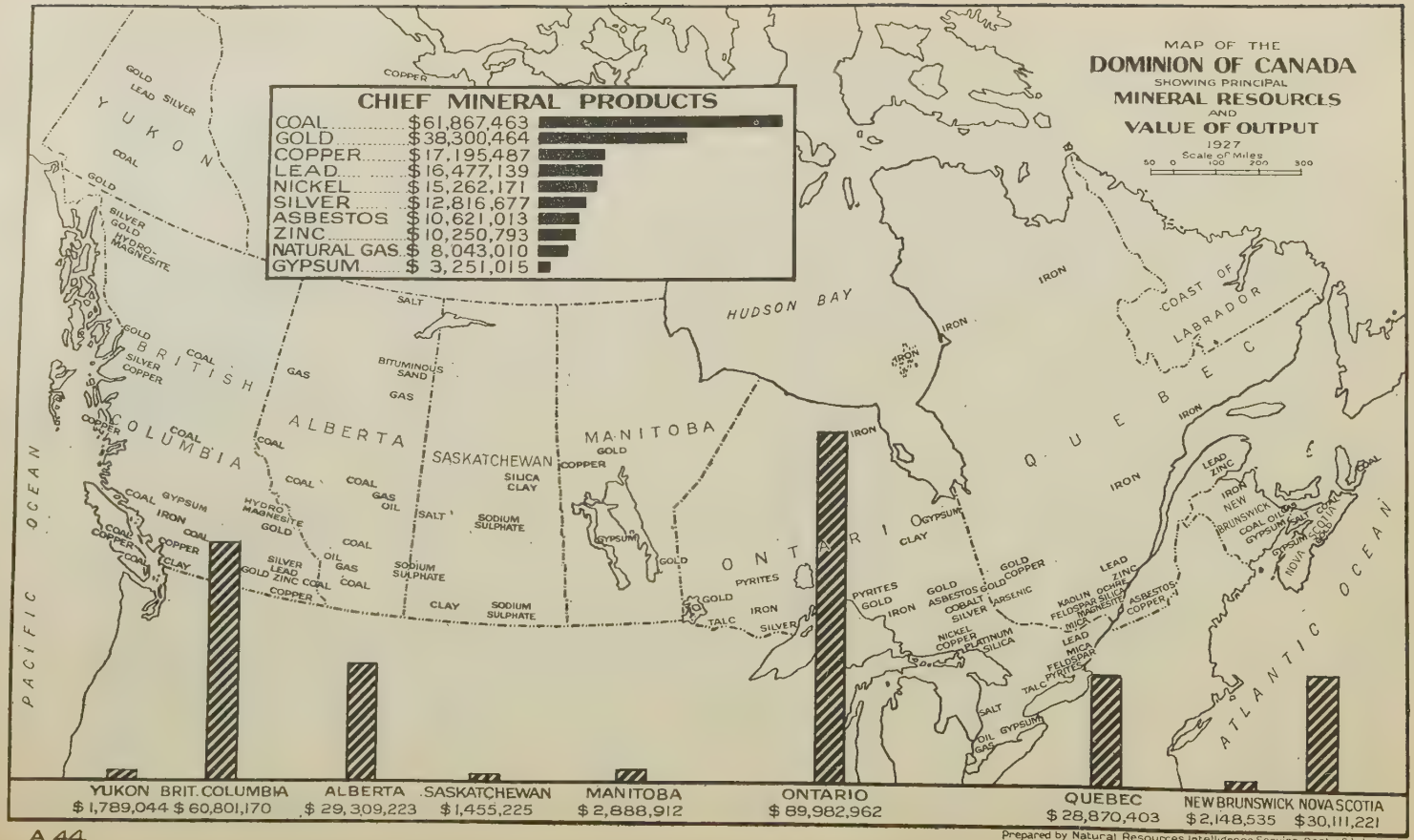
Subsection 1.—General Statistics of Mineral Production.

In Table 1 will be found the total value of the minerals produced in Canada in each year since 1886, while Table 2 gives the details of the mineral production of 1926 and 1927, with the percentages of increase or decrease in the latter year. An interesting comparison of the mineral production of the two years, as to quantities and values, is furnished in Table 3, which shows that the increase of 2·9 p.c. in the value of product in the latter year, as compared with the former, occurred in spite of a decline of 4·8 p.c. in average prices. Had all prices been the same in 1927 as in 1926, the increase in value due to increased quantities would have been 7·7 p.c.

1.—Value of Mineral Production in Canada, calendar years 1886-1928.

Calendar Years.	Total Value.	Value per capita.	Calendar Years.	Total Value.	Value per capita.	Calendar Years.	Total Value.	Value per capita.
	$	$		$	$		$	$
1886	10,221,255	2·23	1900	64,420,877	12·04	1914	128,863,075	16·75
1887	10,321,331	2·23	1901	65,797,911	12·16	1915	137,109,171	17·44
1888	12,518,894	2·67	1902	63,231,836	11·36	1916	177,201,534	22·05
1889	14,013,113	2·96	1903	61,740,513	10·83	1917	189,646,821	23·18
1890	16,763,353	3·50	1904	60,082,771	10·27	1918	211,301,897	25·36
1891	18,976,616	3·92	1905	69,078,999	11·49	1919	176,686,390	20·84
1892	16,623,415	3·39	1906	79,286,697	12·81	1920	227,859,665	26·40
1893	20,035,082	4·04	1907	86,865,202	13·75	1921	171,923,342	19·56
1894	19,931,158	3·98	1908	85,557,101	13·16	1922	184,297,242	20·61
1895	20,505,917	4·05	1909	91,831,441	13·70	1923	214,079,331	23·57
1896	22,474,256	4·38	1910	106,823,623	15·44	1924	209,583,406	22·72
1897	28,485,023	5·49	1911	103,220,994	14·32	1925	226,583,333	24·20
1898	38,412,431	7·32	1912	135,048,296	18·32	1926	240,437,123	25·61
1899	49,234,005	9·27	1913	145,634,812	19·35	1927	247,356,695	25·97
						1928	273,446,864[1]	28·32[1]

[1]Subject to revision.



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Prepared by Natural Resources Intelligence Service, Dept. of Interior, in cooperation with Dept. of Mines & Trade & Comm.

2.—Mineral Production of Canada, calendar years 1926 and 1927.

Items.	1926.		1927.		P.c. increase (+) or decrease (−).	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		$		$	p.c.	p.c.
METALLIC.						
Antimony..... lb.	1,596	281	–	–	–	–
Arsenic (As_2O_3)..... "	5,074,677	146,811	6,227,968	211,979	+ 22·7	+ 44·4
Bismuth..... "	6,440	6,440	2,072	1,003	− 67·8	− 84·4
Cadmium..... "	–	–	–	–	–	–
Cobalt..... "	664,778	1,136,014	880,590	1,764,534	+ 32·5	+ 55·4
Copper..... "	133,094,942	17,490,300	140,147,440	17,195,487	+ 5·3	− 1·7
Gold.....fine oz.	1,754,228	36,263,110	1,852,785	38,300,464	+ 5·6	+ 5·6
Iron ore for export..... tons	200	600	2,029	8,980	–	–
Lead..... lb.	283,801,265	19,240,661	311,423,161	16,477,139	+ 9·7	− 14·4
Molybdenite..... "	20,943	10,472	–	–	–	–
Nickel..... "	65,714,294	14,374,163	66,708,717	15,262,171	+ 1·6	+ 6·1
Palladium, rhodium, iridium, etc.....fine oz.	10,024	640,178	11,545	554,190	+ 15·1	− 13·4
Platinum..... "	9,521	923,607	11,228	717,613	+ 17·9	− 22·3
Silver..... "	22,371,924	13,894,531	22,736,698	12,816,677	+ 1·6	− 7·7
Zinc..... lb.	149,938,105	11,110,413	165,495,525	10,250,793	+ 10·4	− 7·7
Total Metallic Minerals	–	**115,237,581**	–	**113,561,030**	–	**− 1·5**
NON-METALLIC.						
Fuels.						
Coal..... tons.	16,478,131	59,875,094	17,426,861	61,867,463	+ 5·7	+ 3·3
Natural gas.....M cu. ft.	19,208,209	7,557,174	21,376,791	8,043,010	+ 11·3	+ 6·4
Petroleum, crude..... brl.	364,444	1,311,665	476,591	1,516,043	+ 30·8	+ 15·6
Total.....	–	**68,743,933**	–	**71,426,516**	–	**+ 3·9**
Other non-metallic minerals.						
Actinolite..... tons	80	1,000	86	1,075	+ 7·5	+ 7·5
Asbestos..... "	279,403	10,099,423	274,778	10,621,013	− 1·6	+ 5·2
Barytes..... "	100	2,307	56	1,268	− 44·0	− 45·0
Bituminous sands..... "	528	2,112	2,706	10,824	+ 412·5	+ 412·5
Diatomite..... "	–	–	266	6,650	–	–
Feldspar..... "	35,951	310,238	29,849	259,151	− 16·9	− 16·5
Garnets..... "	–	–	2	150	–	–
Graphite..... "	2,727	194,860	1,829	111,656	− 32·9	− 42·7
Grinding pebbles..... "	64	576	–	–	–	–
Grindstones..... "	2,695	151,227	2,251	125,017	− 16·5	− 17·3
Gypsum..... "	883,728	2,770,813	1,063,117	3,251,015	+ 20·4	+ 17·4
Iron oxides..... "	6,626	101,843	6,125	103,536	− 7·6	+ 1·7
Magnesite..... "	4,571	137,431	7,337	230,309	+ 60·5	+ 67·6
Mica..... "	2,545	229,204	2,738	174,377	+ 7·6	− 23·9
Mineral water..... gal.	215,356	29,721	303,530	14,624	+ 40·9	− 50·8
Natro-alunite..... tons	–	–	7	248	–	–
Phosphate..... "	40	800	151	1,717	+ 277·5	+ 114·6
Pyrites..... "	17,845	63,899	50,863	198,388	+ 185·0	+ 210·5
Quartz..... "	232,082	553,161	233,984	496,364	+ 0·8	− 10·3
Salt..... "	262,547	1,480,149	268,672	1,614,667	+ 2·3	+ 9·1
Silica brick..... M	2,665	130,702	1,791	79,527	− 32·8	− 39·1
Sodium carbonate..... tons	595	5,370	805	9,995	+ 35·3	+ 86·1
Sodium sulphate..... "	6,775	13,550	5,659	11,319	− 16·5	− 16·5
Talc and soapstone..... "	15,767	217,195	16,521	236,105	+ 4·8	+ 8·7
Volcanic dust..... "	90	630	105	735	+ 16·7	+ 16·7
Total.....	–	**16,496,211**	–	**17,559,730**	–	**+ 6·4**
Total Non-Metallic Minerals.....	–	**85,240,144**	–	**88,986,246**	–	**+ 4·4**

2.—Mineral Production of Canada, calendar years 1926 and 1927—concluded.

Items.	1926.		1927.		P.c. increase (+) or decrease (−).	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		$		$	p.c.	p.c.
CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS.						
Clay Products.						
Brick—						
Soft mud process—						
Face M	28,235	556,573	15,764	325,966	− 44·2	− 41·4
Common M	78,158	1,145,490	66,357	1,091,274	− 15·1	− 4·7
Stiff mud process— (wire cut)						
Face M	101,028	2,146,362	95,480	2,024,064	− 5·5	− 5·7
Common M	94,046	1,624,055	150,222	2,239,180	+ 59·8	+ 37·9
Dry press—						
Face M	30,423	651,236	39,753	833,570	+ 30·6	+ 28·0
Common M	19,450	260,598	14,617	187,062	− 24·9	− 28·2
Fancy or ornamental brick M	462	24,057	620	29,372	+ 34·2	+ 22·1
Sewer brick M	6,546	117,194	10,997	210,643	+ 68·0	+ 79·7
Paving brick M	122	5,015	50	2,106	− 59·0	− 58·0
Firebrick M	4,195	192,276	5,388	246,266	+ 28·5	+ 28·1
Fire clay tons	2,513	23,258	5,094	36,081	+ 102·8	+ 55·1
Fire clay blocks and shapes	–	54,064	–	100,659	–	+ 86·3
Hollow blocks tons	141,909	1,313,707	151,307	1,431,141	+ 6·6	+ 9·0
Roofing tile No.	17,018	1,562	2,000	140	− 88·2	− 91·0
Floor tile (quarries) sq. ft.	195,011	43,854	135,285	32,559	− 30·6	− 25·8
Drain tile M	14,258	396,018	22,259	598,098	+ 56·1	+ 51·0
Sewer pipe, copings, flue linings, etc tons	75,996	1,480,776	77,262	1,475,875	+ 1·6	− 0·3
Pottery, glazed and unglazed	–	320,135	–	307,057	–	− 4·1
Other clay products	–	1,033	–	2,076	–	+ 89·9
Total	–	**10,357,323**	–	**11,173,189**	–	+ 7·9
Other Structural Materials.						
Cement brl.	8,707,021	13,013,283	10,065,865	14,391,937	+ 15·6	+ 10·6
Lime bush.	11,825,736	3,781,484	12,707,221	3,923,388	+ 7·5	+ 3·7
Sand and gravel tons	17,112,798	4,941,434	22,952,819	6,055,601	+ 34·2	+ 22·5
Stone "	6,397,590	7,865,874	7,306,436	9,265,304	+ 14·2	+ 17·8
Total	–	**29,602,075**	–	**33,636,230**	–	+ 13·6
Total Clay Products and Other Structural Materials	–	**39,959,398**	–	**44,809,419**	–	+ 12·1
Grand Total	–	**240,437,123**	–	**247,356,695**	–	+ 2·9

3.—Mineral Production of Canada, compared as to Quantity and Value, calendar years 1926 and 1927 ("000" omitted).

Items.	Actual value 1927.	Value at prices of 1926.	Actual value 1926.	Increase (+) or decrease (−).	Due to higher (+) or lower (−) prices.	Due to larger (+) or smaller (−) quantities.
METALLIC.	$	$	$	$	$	$
Arsenic	212	180	147	+ 65	+ 32	+ 33
Cobalt	1,764	1,504	1,136	+ 628	+ 260	+ 368
Copper	17,195	18,418	17,490	− 295	− 1,223	+ 928
Gold	38,300	38,301	36,263	+ 2,037	− 1	+ 2,038
Lead	16,477	21,114	19,241	− 2,764	− 4,637	+ 1,873
Nickel	15,262	14,612	14,374	+ 888	+ 650	+ 238
Palladium, rhodium, etc.	554	738	640	− 86	− 184	+ 98
Platinum	718	1,089	924	− 206	− 371	+ 165
Silver	12,817	14,115	13,895	− 1,078	− 1,298	+ 220
Zinc	10,251	12,263	11,110	− 859	− 2,012	+ 1,153
Other	11	12	18	− 7	− 1	− 6
Total	**113,561**	**122,346**	**115,238**	**− 1,677**	**− 8,785**	**+ 7,108**

3.—Mineral Production of Canada, compared as to Quantity and Value, calendar years 1926 and 1927 ("000" omitted)—concluded.

Items.	Actual value 1927.	Value at prices of 1926.	Actual value 1926.	Increase (+) or decrease (−).	Due to higher (+) or lower (−) prices.	Due to larger (+) or smaller (−) quantities.
	$	$	$	$	$	$
NON-METALLIC—*Fuels.*						
Coal	61,867	63,323	59,875	+ 1,992	− 1,456	+ 3,448
Natural gas	8,043	8,410	7,557	+ 486	− 367	+ 853
Petroleum, crude	1,516	1,715	1,312	+ 204	− 199	+ 403
Total	**71,426**	**73,448**	**68,744**	**+ 2,682**	**− 2,022**	**+ 4,704**
Other Non-Metallic Minerals.						
Asbestos	10,621	9,932	10,099	+ 522	+ 689	− 167
Feldspar	259	257	310	− 51	+ 2	− 53
Graphite	112	130	195	− 83	− 18	− 65
Grindstones	125	126	151	− 26	− 1	− 25
Gypsum	3,251	3,333	2,771	+ 480	− 82	+ 562
Iron oxides	104	94	102	+ 2	+ 10	− 8
Magnesite	230	220	137	+ 93	+ 10	+ 83
Mica	174	246	229	− 55	− 72	+ 17
Mineral water	15	41	30	− 15	− 26	+ 11
Pyrites	198	182	64	+ 134	+ 16	+ 118
Quartz	496	558	553	− 57	− 62	+ 5
Salt	1,615	1,515	1,480	+ 135	+ 100	+ 35
Silica brick	80	87	131	− 51	− 7	− 44
Talc and soapstone	236	227	217	+ 19	+ 9	+ 10
Other	44	43	27	+ 17	+ 1	+ 16
Total	**17,560**	**16,981**	**16,496**	**+ 1,064**	**+ 579**	**+ 485**
CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS.						
Clay Products.						
Brick—Soft mud process.. Face	326	311	557	− 231	+ 15	− 246
Brick—Soft mud process.. Common	1,091	972	1,145	− 54	+ 119	− 173
Stiff mud process.. Face	2,024	2,028	2,146	− 122	− 4	− 118
Stiff mud process.. Common (wire cut)	2,239	2,595	1,624	+ 615	− 356	+ 971
Dry press.... Face	833	851	651	+ 182	− 18	+ 200
Dry press.... Common	187	195	260	− 73	− 8	− 65
Fancy or ornamental	29	32	24	+ 5	− 3	+ 8
Sewer brick	210	196	117	+ 93	+ 14	+ 79
Fire brick	246	247	192	+ 54	− 1	+ 55
Hollow blocks	1,431	1,401	1,314	+ 117	+ 30	+ 87
Floor tiles	33	30	44	− 11	+ 3	− 14
Drain tiles	598	618	396	+ 202	− 20	+ 222
Sewer pipe, copings, etc.	1,476	1,504	1,481	− 5	− 28	+ 23
Other	450	460	406	+ 44	− 10	+ 54
Total	**11,173**	**11,440**	**10,357**	**+ 816**	**− 167**	**+ 1,083**
Other Structural Materials.						
Cement	14,392	15,044	13,013	+ 1,379	− 652	+ 2,031
Lime	3,923	4,063	3,781	+ 142	− 140	+ 282
Sand and gravel	6,056	6,628	4,942	+ 1,114	− 572	+ 1,686
Stone	9,265	8,983	7,866	+ 1,399	+ 282	+ 1,117
Total	**33,636**	**34,718**	**29,602**	**+ 4,034**	**− 1,082**	**+ 5,116**
Grand Total	**247,357**	**258,933**	**240,437**	**+ 6,919**	**− 11,577**	**+ 18,496**
Increase or decrease, p.c	−	−	−	+ 2·9	− 4·8	+ 7·7

Subsection 2.—Provincial Distribution of Mineral Production.

The principal mineral-producing province of Canada in 1927 was Ontario, with an output valued at $89,982,962. British Columbia came second with a mineral production valued at $60,801,170. Nova Scotia was third with $30,111,221

and Alberta ranked fourth with $29,309,223. Quebec was fifth with $28,870,403 and Manitoba, New Brunswick, Yukon Territory and Saskatchewan followed in the order named, with productions of from $2,888,912 down to $1,455,225. The record of the respective provinces from 1899 on is given in Table 4.

4.—Mineral Production of Canada, by Provinces, calendar years 1899-1928.

Calendar Years.	Nova Scotia.[1]	New Brunswick.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	Yukon.	British Columbia.
	$	$	$	$	$				$
1899....	6,817,274	420,227	2,585,635	9,819,557		17,108,707			12,482,605
1900....	9,298,479	439,060	3,292,383	11,258,099		23,452,330			16,680,526
1901....	7,770,159	467,985	3,759,984	13,970,010		19,297,940			20,531,833
1902....	10,686,549	607,129	3,743,636	14,619,091		16,127,400			17,448,031
1903....	11,431,914	580,495	3,585,938	14,160,033		14,082,986			17,899,147
1904....	11,212,746	559,913	3,688,482	12,582,843		12,713,613			19,325,174
1905....	11,507,047	559,035	4,405,975	18,833,292		11,387,642			22,386,008
1906....	12,894,303	646,328	5,242,058	25,111,682		10,092,726			25,299,600
1907....	14,532,040	664,467	6,205,553	30,381,638	898,775	533,251	4,657,524	3,335,898	25,656,056
1908....	14,487,108	579,816	6,372,949	30,623,812	584,374	413,212	5,122,505	3,669,290	23,704,035
1909....	12,504,810	657,035	7,086,265	37,374,577	1,193,377	456,246	6,047,447	4,032,678	22,479,006
1910....	14,195,730	581,942	8,270,136	43,538,078	1,500,359	498,122	8,996,210	4,764,474	24,478,572
1911....	15,409,397	612,830	9,304,717	42,796,162	1,791,772	636,706	6,662,673	4,707,432	21,299,305
1912....	18,922,236	771,004	11,656,998	51,985,876	2,463,074	1,165,642	12,073,589	5,933,242	30,076,635
1913....	19,376,183	1,102,613	13,475,534	59,167,749	2,214,496	881,142	15,054,046	6,276,737	28,086,312
1914....	17,584,639	1,014,570	11,836,929	53,034,677	2,413,489	712,313	12,684,234	5,418,185	24,164,039
1915....	18,088,342	903,467	11,619,275	61,071,287	1,318,387	451,933	9,909,347	5,057,708	28,689,425
1916....	20,042,262	1,118,187	14,406,598	80,461,323	1,823,576	590,473	13,297,543	5,491,610	39,969,962
1917....	21,104,542	1,435,024	17,400,077	89,066,600	2,628,264	860,651	16,527,535	4,482,202	36,141,926
1918....	22,317,108	2,144,017	19,605,347	94,694,092	3,120,600	1,019,781	23,109,987	2,355,631	42,935,333
1919....	23,445,215	1,770,945	21,267,947	67,917,998	2,868,378	1,521,964	21,087,582	1,940,934	34,865,427
1920....	34,130,017	2,491,787	28,886,214	81,715,808	4,223,461	1,837,468	33,586,456	1,576,726	39,411,728
1921....	28,912,111	1,901,505	15,157,094	57,356,651	1,934,117	1,114,220	30,562,229	1,754,955	33,230,460
1922....	25,923,499	2,263,692	17,646,529	65,866,029	2,258,942	1,255,470	27,872,136	1,785,573	39,423,962
1923....	29,648,893	2,462,457	20,308,763	80,825,851	1,768,037	1,047,583	31,287,536	2,972,823	43,757,388
1924....	23,820,352	1,969,260	19,136,504	85,398,656	1,534,249	1,128,100	22,344,940	952,812	52,298,533
1925....	17,625,612	1,743,858	24,284,527	87,980,436	2,276,759	1,076,392	25,318,866	1,791,641	64,485,242
1926....	28,873,792	1,811,104	25,956,193	84,702,296	3,073,528	1,193,394	26,977,027	2,226,813	65,622,976
1927....	30,111,221	2,148,535	28,870,403	89,982,962	2,888,912	1,455,225	29,309,223	1,789,044	60,801,170
1928[2]....	29,757,010	2,257,653	37,182,864	99,628,503	4,119,656	1,536,935	32,367,781	2,683,270	53,913,159

[1]Includes a small production from Prince Edward Island.
[2]Figures for 1928 are subject to revision.

The quantities and values of the minerals produced in each province during 1927 are shown in Table 5. Coal accounts for 90 p.c. of the value of mineral production in Nova Scotia, with gypsum the item of next importance. Coal and gypsum are also the most important mineral products of New Brunswick, which is one of the three provinces of the Dominion with a production of natural gas and petroleum. Quebec is the only province in which asbestos is produced, and in 1927 this was her principal mineral. Other important minerals of Quebec are cement, stone and other structural materials, zinc, silver, copper, lead, gold and magnesite. Gold represented 37 p.c. of the value of Ontario's mineral production in 1927, and with other metals, of which nickel, silver, copper and cobalt are the chief, made up nearly 70 p.c. of the total for the province. As the most populous province, Ontario has a large production of the various structural materials, and there is also a large production of natural gas and of salt. Aside from cement and other structural materials, gypsum is the principal mineral product of Manitoba. Saskatchewan's mineral production is small and coal constitutes more than half the total. Coal is

also the principal product in Alberta, accounting for 75 p.c. of the total, while natural gas and petroleum are the other most important products. The metals, chiefly lead, copper, zinc, silver and gold, make up the greater part of the value of the minerals produced in British Columbia, although there is also a large production of coal. Silver, alluvial gold and lead are the principal mineral products of the Yukon Territory.

5.—Mineral Production of Canada, by Provinces, calendar year 1927.

NOTE.—The mineral production of the Yukon Territory during the calendar year 1927 was as follows in quantities and values:—Gold, 30,935 fine oz., $639,483; Lead, 4,165,331 lb., $218,929; Silver, 1,647,295 fine oz., $928,580; Coal, 414 tons, $2,052; Total, $1,789,044.

Minerals.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.
METALLICS.								
Arsenic..... lb.	35,000	–	–	4,961,178	–	–	–	1,231,790
$	700	–	–	197,668	–	–	–	13,611
Bismuth..... lb.	–	–	–	2,072	–	–	–	–
$	–	–	–	1,003	–	–	–	–
Cobalt..... lb.	–	–	–	880,590	–	–	–	–
$	–	–	–	1,764,534	–	–	–	–
Copper..... lb.	–	–	3,119,848	45,341,295	–	–	–	91,686,297
$	–	–	403,084	4,946,533	–	–	–	11,845,870
Gold.....fine oz.	3,151	–	8,331	1,627,050	182	–	42	183,094
$	65,137	–	172,217	33,634,108	3,762	–	868	3,784,889
Iron ore sold for export.....tons	–	–	2,029	–	–	–	–	–
$	–	–	8,980	–	–	–	–	–
Lead..... lb.	–	–	6,496,577	7,990,709	–	–	–	292,770,544
$	–	–	341,461	528,729	–	–	–	15,388,020
Nickel..... lb.	–	–	–	66,798,717	–	–	–	–
$	–	–	–	15,262,171	–	–	–	–
Palladium, Rhodium, etc.....fine oz.	–	–	–	11,545	–	–	–	–
$	–	–	–	554,190	–	–	–	–
Platinum.....fine oz.	–	–	–	11,217	–	–	–	11
$	–	–	–	716,653	–	–	–	960
Silver.....fine oz.	125	–	740,864	9,307,953	12	–	4	11,040,445
$	70	–	417,625	5,246,893	7	–	3	6,223,499
Zinc..... lb.	–	–	17,189,046	–	–	–	–	148,306,479
$	–	–	1,064,690	–	–	–	–	9,186,103
Total..... $	**65,907**	**–**	**2,408,057**	**62,852,482**	**3,769**	**–**	**871**	**46,442,952**
NON-METALLICS.								
Fuels.								
Coal.....tons	7,071,876	203,950	–	–	–	470,216	6,934,162	2,746,243
$	27,194,671	885,038	–	–	–	868,867	21,982,058	10,934,777
Natural gas..M cu. ft.	–	630,755	–	7,311,215	200	–	13,434,621	–
$	–	124,637	–	4,331,780	60	–	3,586,533	–
Petroleum, crude..brl.	–	18,244	–	139,606	–	–	318,741	–
$	–	41,748	–	288,347	–	–	1,185,948	–
Total..... $	**27,194,671**	**1,051,423**	**–**	**4,620,127**	**60**	**868,867**	**26,754,539**	**10,934,777**
Other Non-Metallics.								
Actinolite.....tons	–	–	–	86	–	–	–	–
$	–	–	–	1,075	–	–	–	–
Asbestos.....tons	–	–	274,778	–	–	–	–	–
$	–	–	10,621,013	–	–	–	–	–
Barytes.....tons	56	–	–	–	–	–	–	–
$	1,268	–	–	–	–	–	–	–
Bituminous sands..tons	–	–	–	–	–	–	2,706	–
$	–	–	–	–	–	–	10,824	–
Diatomite.....tons	266	–	–	–	–	–	–	–
$	6,650	–	–	–	–	–	–	–
Feldspar.....tons	–	–	12,730	17,119	–	–	–	–
$	–	–	104,618	154,533	–	–	–	–
Garnets.....tons	–	–	2	–	–	–	–	–
$	–	–	150	–	–	–	–	–

5.—Mineral Production of Canada, by Provinces, calendar year 1927—continued.

Minerals.		Nova Scotia.	New Brunswick.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.
Other Non-Metallics —concluded.									
Graphite	tons	–	–	34	1,795	–	–	–	–
	$	–	–	2,043	109,613	–	–	–	–
Grindstones	tons	11	1,860	–	–	–	–	–	380
	$	220	97,197	–	–	–	–	–	27,600
Gypsum	tons	829,438	85,293	–	83,998	39,895	–	–	24,493
	$	1,512,015	524,550	–	500,688	512,008	–	–	201,754
Iron oxides	tons	–	–	5,931	–	–	–	–	194
	$	–	–	102,186	–	–	–	–	1,350
Magnesite	tons	–	–	7,337	–	–	–	–	–
	$	–	–	230,309	–	–	–	–	–
Mica	tons	–	–	1,454	1,284	–	–	–	–
	$	–	–	99,194	75,183	–	–	–	–
Mineral water	imp.gal.	–	–	10,330	293,200	–	–	–	–
	$	–	–	1,813	12,811	–	–	–	–
Natro-alunite	tons	–	–	–	–	–	–	–	7
	$	–	–	–	–	–	–	–	248
Phosphate	tons	–	–	31	82	–	–	–	38
	$	–	–	399	824	–	–	–	494
Pyrites	tons	–	–	13,021	463	–	–	–	37,379
	$	–	–	42,795	6,077	–	–	–	149,516
Quartz	tons	4,834	–	49,141	159,150	–	–	–	20,859
	$	16,721	–	132,615	266,204	–	–	–	80,824
Salt	tons	14,391	–	–	254,181	–	–	100	–
	$	102,590	–	–	1,510,777	–	–	1,300	–
Silica brick	M	1,238	–	–	553	–	–	–	–
	$	50,978	–	–	28,549	–	–	–	–
Sodium carbonate	tons	–	–	–	–	–	–	–	805
	$	–	–	–	–	–	–	–	9,995
Sodium sulphate	tons	–	–	–	–	–	5,659	–	–
	$	–	–	–	–	–	11,319	–	–
Talc and soapstone	tons	–		1,276	15,138		–	–	107
	$	–	–	51,504	181,981	–	–	–	2,620
Volcanic dust	tons	–	–	–	–	–	105	–	–
	$	–	–	–	–	–	735	–	–
Total	$	**1,690,442**	**621,747**	**11,388,639**	**2,848,315**	**512,008**	**12,054**	**12,124**	**474,401**
CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS.									
Clay Products.									
Brick—									
Soft mud process—									
Face	M	35	–	83	15,646	–	–	–	–
	$	735	–	1,243	323,988	–	–	–	–
Common	M	972	2,885	6,167	43,385	1,132	863	2,305	11,348
	$	12,893	44,100	63,353	740,664	18,100	10,592	28,461	173,111
Stiff mud process (wire cut)—									
Face	M	1,345	–	24,762	65,894	143	1,419	1,545	372
	$	31,068	–	577,348	1,321,604	3,800	42,711	35,613	11,920
Common	M	3,887	–	106,341	21,177	7,391	5,709	5,619	98
	$	47,549	–	1,627,330	310,344	122,019	66,654	62,892	2,392
Dry press—									
Face	M	–	–	2,134	32,699	947	576	2,448	949
	$	–	–	63,047	641,903	21,921	19,197	48,467	39,035
Common	M	–	–	–	1,147	–	–	13,470	–
	$	–	–	–	12,716	–	–	174,346	–
Fancy or ornamental brick	M	–	–	101	519	–	–	–	–
	$	–	–	4,356	25,016	–	–	–	–
Sewer brick	M	–	–	–	10,760	–	–	–	237
	$	–	–	–	202,920	–	–	–	7,723
Paving brick	M	–	–	–	–	–	–	–	50
	$	–	–	–	–	–	–	–	2,106
Firebrick	M	227	40	–	–	–	693	107	4,321
	$	14,050	2,216	–	–	–	37,085	5,850	187,065
Fireclay and other clay	tons	2,688	53	24	–	–	1,008	–	1,321
	$	8,986	2,112	120	–	–	7,531	–	17,332
Fireclay blocks and shapes	$	525	–	–	–	–	61,634	–	38,500

5.—Mineral Production of Canada, by Provinces, calendar year 1927—concluded.

Minerals.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia
Clay Products—con.								
Hollow blocks.....tons	8,793	–	25,034	86,690	1,552	6,500	15,345	7,393
$	96,260	–	257,558	775,806	18,862	65,000	142,156	75,499
Roofing tile.....No.	–	–	–	2,000	–	–	–	–
$	–	–	–	140	–	–	–	–
Floor tiles (quarries).....sq. ft.	–	–	–	134,910	–	–	–	375
$	–	–	–	32,490	–	–	–	69
Drain tile..... M	53	–	323	20,330	343	25	157	1,028
$	1,610	–	13,336	521,957	16,762	800	8,992	34,641
Sewer pipe, copings, flue linings, etc...tons	10,501	–	5,286	50,828	–	–	7,852	2,795
$	202,741	–	126,035	852,187	–	–	205,581	89,331
Pottery, glazed or unglazed..... $	–	38,757	–	91,300	–	–	177,000	–
Other clay products $	–	–	1,012	–	–	–	–	1,064
Total..... $	**416,417**	**87,185**	**2,734,738**	**5,853,035**	**201,464**	**311,204**	**889,358**	**679,788**
Other Structural Materials.								
Cement.....brl.	–	–	4,636,751	3,751,786	551,698	–	601,699	523,931
$	–	–	5,383,058	5,144,326	1,378,121	–	1,303,880	1,182,552
Lime.....bush.	873,200	343,111	3,075,819	6,946,630	648,975	–	130,596	688,890
$	100,254	148,321	806,665	2,198,239	246,279	–	46,947	376,683
Sand and gravel...tons	812,976	388,066	8,615,738	7,512,763	1,333,580	1,517,801	1,392,752	1,379,143
$	522,723	118,768	1,880,931	2,405,729	228,655	263,100	293,674	342,021
Stone.....tons	72,451	29,908	2,534,531	4,254,960	154,666	–	3,367	256,553
$	120,807	121,091	4,268,315	4,060,709	318,556	–	7,830	367,996
Total..... $	**743,784**	**388,180**	**12,338,969**	**13,809,003**	**2,171,611**	**263,100**	**1,652,331**	**2,269,252**
Grand Total.. $	**30,111,221**	**2,148,535**	**28,870,403**	**89,982,962**	**2,888,912**	**1,455,225**	**29,309,223**	**60,801,170**

Section 3.—Industrial Statistics of Mining—Capital, Labour, Wages, etc., in Principal Industries.

Annual statistical reports on the mineral production of Canada have been published for many years, first by the Geological Survey, later by the Mines Branch of the Department of Mines, and since 1921 by the Dominion Bureau of Statistics. Previous to that year the annual statistics of mines were confined chiefly to a presentation of the quantity and value production of each of the minerals. The recent treatment has been extended to include a general review of the principal mineral industries, such as the copper-gold, silver-lead-zinc and nickel-copper industries, as well as a section on metallurgical works. The additional data include such features as capital employed, numbers of employees, wages and salaries paid and gross and net production. The aim has been to extend the mining statistics beyond a summary of the production of individual minerals by approaching the subject from the standpoint of industrial organization, definitely illustrating the place which mining holds in the scheme of Canadian productive enterprise.

The Growth of the Mining Industry in Recent Years.—Industrial statistics of the mining industry were collected for the first time in 1922, showing the capital employed, the number of employees, the salaries and wages paid, the cost of fuel and electricity, and the net value of the product. In connection with the item of capital, operators were requested to report *only the capital actually invested in the enterprises*, including (1) cost of lands, buildings, plant, machinery and tools, (2) cost of materials on hand, supplies, finished products and ore on dump, and (3) cash,

trading and operating accounts and bills receivable. It should be specially noted that no estimate of undeveloped ores was included in the capital.

The substantial growth of the mining industry in the past few years is clearly established by the summary statistics of Table 6, which show that the capital invested in the mining industry has increased from $493,694,823 in 1922 to $714,073,000 in 1927, the number of employees from 62,249 to 84,674, the salaries and wages from $75,026,501 to $104,220,892, the cost of fuel and electricity from $11,096,564 to $22,960,284, and the net value of products from $182,858,578 to $251,077,661. The metallic mining industries have shown the greatest progress, their capital, number of employees, salary and wage bill, and net value of products having all doubled between 1922 and 1927, in a period of declining prices. Details are given in Table 6.

6.—Summary of Principal Statistics of the Mineral Industries in Canada, by Groups, 1922-1927, and by Provinces, 1927.

Groups and Years.	Active operators.	Capital employed.	Employees.	Salaries and wages.	Cost of fuel and electricity.	Net value[2] of bullion, ore, concentrates, etc. shipped from the mines, plants and quarries.
	No.	$	No.	$	$	$
METALLIC MINERALS.						
1922	408	165,975,343	13,138	18,361,667	1,649,856	60,347,043
1923	339	240,889,284	16,472	25,794,032	7,904,820	68,612,936
1924	296	281,828,285	19,809	29,692,896	7,788,506	86,825,610
1925	323	290,534,965	20,664	32,732,782	8,721,063	105,700,838
1926	396	320,248,840	23,742	36,033,798	10,023,885	115,939,119
1927	479	335,708,206	26,343	40,284,887	10,411,397	121,062,811
NON-METALLIC MINERALS.						
1922	742	232,888,769	37,958	45,225,900	4,028,784	82,976,794
1923	925	243,105,227	39,060	53,428,264	6,422,352	91,936,732
1924	935	259,360,944	33,831	41,933,916	5,788,085	71,796,009
1925	959	253,023,646	31,560	40,032,918	5,685,294	71,851,801
1926	967	274,109,129	36,166	44,379,854	6,535,609	85,240,144
1927	922	279,737,591	37,949	48,273,491	5,402,897	85,205,431
CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS.						
1922	794	94,830,711	11,153	11,348,934	5,417,924	39,534,741
1923	1,031	94,842,501	11,420	12,112,581	6,930,164	37,751,381
1924	983	91,254,717	10,688	11,160,609	6,010,861	35,380,869
1925	1,072	88,516,534	12,866	12,337,418	6,159,443	37,649,234
1926	1,064	94,392,039	18,023	13,803,161	6,958,810	39,959,398
1927	949	98,627,203	20,382	15,662,514	7,145,990	44,809,419
Grand Total, Mineral Industries—						
1922	**1,944**	**493,694,823**	**62,249**	**75,026,501**	**11,096,564**	**182,858,578**
1923	**2,295**	**578,837,012**	**66,952**	**91,334,877**	**21,257,336**	**198,301,049**
1924	**2,214**	**632,443,946**	**64,328**	**82,787,421**	**19,587,452**	**194,002,488**
1925	**2,354**	**632,075,145**	**65,090**	**85,103,118**	**20,565,800**	**215,201,873**
1926	**2,427**	**688,750,008**	**77,931**	**94,216,813**	**23,518,304**	**241,138,661**
1927	**2,350**	**714,073,000**	**84,674**	**104,220,892**	**22,960,284**	**251,077,661**
Nova Scotia[1]	78	70,934,465	15,663	18,076,122	2,283,744	27,966,861
New Brunswick	41	3,014,614	1,196	1,092,891	125,847	2,106,635
Quebec	381	110,769,954	18,012	15,104,472	4,988,922	39,617,797
Ontario	1,014	282,205,248	21,147	28,753,161	8,642,617	88,824,642
Manitoba	32	11,780,120	1,007	1,232,805	590,225	2,888,895
Saskatchewan	72	5,089,410	1,112	855,704	110,961	1,432,739
Alberta	376	105,203,514	11,205	15,699,304	1,154,548	28,621,537
British Columbia	282	114,129,277	15,031	22,714,957	4,966,446	58,019,829
Yukon	74	10,946,398	301	691,476	96,974	1,598,726

[1] Includes a small production from P.E.I. [2] See note to Table 7.

A summary of the principal statistics of the mining, metallurgical, structural materials and clay products industries operating in Canada in 1927 is presented in Table 7. The values of the metallic production given in Tables 6 and 7 are as reported by the operating companies, and are in each case the settlements received for shipments. The totals, therefore, indicate more nearly the actual return to the different industries than do the values for the several metals in Table 2 of this chapter, where in the cases of copper, lead, zinc and silver the values are computed by using the average prices for the year in the principal metal markets. Some imported ores and concentrates are treated in Canadian non-ferrous smelting and refining works. The net value of the products of these plants includes therefore the net value of the metals recovered from these imported ores and to this extent the net value of production shown in Tables 6 and 7 includes products not of Canadian origin. For this reason, the total of metallic production in Table 7 is greater instead of less than that in Table 2.

Of the industries engaged in exploiting the mineral resources of Canada, coal mining is the greatest in capital invested, employees engaged and net value of production. The non-ferrous metallurgical industry comes second in net value of production, but auriferous quartz mining employs more capital, has a larger labour force than the smelting industry and stands third in net value of production. Other large mineral industries with a net production valued at over $10,000,000 in 1927 were silver-lead-zinc mining, cement manufacturing and asbestos mining and milling.

7.—Summary of Principal Statistics relative to the Mining, Metallurgical, Structural Materials and Clay Products Industries operating Plants in Canada, by Industries, 1927.

Industries.	Active operators.	Capital employed.	Employees.	Salaries and wages paid.	Cost of fuel and electricity.	Net value[1] of bullion, ore, concentrates shipped from the mines and smelters.
	No.	$	No.	$	$	$
METALLIC—						
Alluvial gold mining	94	9,653,723	321	472,596	30,834	794,033
Auriferous quartz mining and milling	72	118,381,468	8,022	12,935,719	2,222,085	37,452,995
Copper-gold-silver mining and milling	118	24,232,169	4,083	5,260,095	596,137	9,822,881
Silver-cobalt mining and milling	23	30,123,645	1,458	2,178,163	472,548	4,760,546
Silver-lead-zinc mining and milling	157	28,036,330	3,106	4,807,817	588,520	17,520,130
Nickel-copper mining and milling	2	39,272,609	1,617	2,486,313	120,686	5,223,668
Miscellaneous metal mines	5	641,600	65	23,944	460	8,980
Non-ferrous metal smelting and refining	8	85,366,662	7,671	12,120,240	6,380,127	45,479,578[2]
Total Metallic	**479**	**335,708,206**	**26,343**	**40,281,887**	**10,411,397**	**121,062,811**
NON-METALLIC—*Fuels*:						
Coal mining	385	146,392,808	29,772	38,955,967	3,558,926	58,439,742
Natural gas	172	56,777,091	1,342	1,535,498	11,181	7,689,916
Petroleum	206	22,773,916	781	1,120,224	112,763	1,516,043
Total Fuels	763	225,943,815	31,895	41,611,689	3,682,870	67,645,701

[1] Net value here is gross value less freight and treatment charges.

[2] Value of shipments from metallurgical works, less cost of ores, concentrates, matte, etc., treated, irrespective of their origin. The major part of the value of ores treated is included as products of mines and mills, but some imported ores are also treated in these Canadian smelters.

7.—Summary of Principal Statistics relative to the Mining, Metallurgical, Structural Materials and Clay Products Industries operating Plants in Canada, by Industries, 1927—concluded.

Industries.	Active operators.	Capital employed.	Employees.	Salaries and wages paid.	Cost of fuel and electricity.	Net value of bullion, ore, concentrates shipped from the mines and smelters.
	No.	$	No.	$	$	$
Other Non-metallic Minerals.						
Abrasives	9	433,810	132	107,603	10,279	132,552
Asbestos	7	35,316,821	2,976	3,761,192	1,046,541	10,621,013
Feldspar	29	322,978	234	151,553	10,232	259,151
Gypsum	19	9,055,624	1,427	1,311,688	198,199	3,251,015
Iron oxides	5	153,317	48	38,680	18,222	103,536
Mica	21	322,389	168	118,505	4,400	174,377
Quartz	19	963,216	267	271,555	34,423	496,364
Salt	10	3,194,802	376	499,967	287,260	1,614,667
Talc and soapstone	8	715,439	122	87,721	25,169	236,105
Miscellaneous	32	3,315,380	304	313,338	85,302	670,950
Total other Non-metallic	159	53,793,776	6,054	6,661,802	1,720,027	17,559,730
Total Non-metallic	**922**	**279,737,591**	**37,949**	**48,273,491**	**5,402,897**	**85,205,431**
CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS—*Clay Products.*						
Brick and tile	167	24,795,253	3,977	3,828,106	1,786,684	8,995,741
Clay sewer pipe	5	3,246,183	421	506,730	214,068	1,137,284
Fire brick and other fire clay products	5	2,009,449	199	263,910	71,789	715,608
Stoneware and pottery	5	359,918	152	50,965	12,956	311,085
Total Clay Products[3]	185	30,437,607	4,776	4,769,307	2,088,724	11,173,189
Other Structural Materials.						
Cement	6	40,509,319	2,270	3,143,932	3,546,000	14,391,937
Lime	53	6,200,481	1,132	1,133,708	826,436	3,923,388
Sand and gravel	483	7,668,812	7,133	2,043,962	188,327	6,055,601
Stone	222	13,810,984	5,071	4,571,605	496,503	9,265,304
Total other Structural Materials	764	68,189,596	15,606	10,893,207	5,057,266	33,636,230
Total Clay Products and other Structural Materials	**949**	**98,627,203**	**20,382**	**15,662,514**	**7,145,990**	**44,809,419**
Grand Total, Mineral Industries	**2,350**	**714,073,000**	**84,674**	**104,220,892**	**22,960,284**	**251,077,661**

[3] Includes kaolin and other clays.

Subsection 1.—Metallic Mineral Industries.

The metal-mining and milling section included in 1927 471 active mining operators and 8 metallurgical companies. Employees numbering 26,343 were engaged in the metallic group, receiving salaries and wages amounting to $40,284,887. The capital employed was $335,708,206, and the net value of bullion, concentrates or residues shipped from the mines and products made by the smelters was $121,062,811. This includes some production by the smelters from imported ores.

Alluvial gold mining carried on throughout the various parts of the Yukon and British Columbia yielded 47,264 crude ounces of gold. The employees numbered 321, receiving $472,596 in salaries and wages for six to eight months' activity. There were 76 auriferous quartz mines operating, of which 37 produced bullion or shipped ores, and the remainder carried on development work only. The provinces in order of importance, with the number of operating mines in each, were:—Ontario,

46; British Columbia, 16; Nova Scotia, 13; and Manitoba, 1. The employees numbered 8,022, and received $12,935,719 in salaries and wages.

The copper-gold-silver industry continued to expand in 1927, while 1928 is likely to see further expansion, owing to the fact that the Noranda smelter commenced operation in December, 1927, thus inaugurating production from the field of northwestern Quebec. The number of employees in the industry increased from 3,403 in 1926 to 4,083 in 1927, while the salaries and wages increased from $4,546,493 to $5,260,095.

The silver-cobalt mining industry, located mainly about Cobalt, with important outlying fields in South Lorrain, 20 miles to the south, and at Gowganda, 50 miles to the west, produces the major portion of the silver output of Ontario. In 1927 in the Cobalt area there were 13 producing mines; in the South Lorrain field 5 mines were on the producing list and in Gowganda 3 mines. The Nipissing mine was the principal silver producer in these districts. Other large mines, in order of their production, were:—Mining Corporation, Keeley, Frontier Lorrain, Castle Tretheway and O'Brien. The output of ores was 303,134 tons, the quantity milled amounted to 304,534 tons and the concentrates produced totalled 5,533 tons. There were 78,838 tons cyanided. Silver bullion production amounted to 2,053,991 oz., as only one mine operated a refinery and the remainder shipped directly to the smelters ores and concentrates containing 6,585,768 oz.

The nickel-copper industry, the mines and smelters of which are situated in the vicinity of Sudbury, enjoyed greater activity during 1927. The content of matte made was 39,623 tons of nickel in 1927, as compared with 39,038 tons in 1926, and 25,968 tons of copper, as compared with 24,159 tons in the preceding year. Employees in the mines and mills in 1927 numbered 1,617, receiving $2,486,313 in salaries and wages, as compared with 1,437 workers, receiving remuneration of $1,963,617, in the preceding year.

The silver-lead-zinc industry showed increases both in number of mines operated and in the metallic content of the ores as determined by settlement assay. The greatest activity was observed in the Kootenay section of British Columbia, where the most important Canadian lead-zinc mines are situated. The Yukon was represented by 17 mines. Five Quebec properties, of which one made shipments, carried on operations, while the industry was represented in Ontario by the mine at Galetta and three properties under development in the Sudbury basin area. The employees in 1927 numbered 3,106, with salaries and wages of $4,807,817, as compared with 2,924 receiving $4,431,730 in 1926.

The capital employed by the metallurgical works amounted to $85,366,662. Employees numbered 7,671, who received $12,120,240 in salaries and wages. The estimated cost of ores and concentrates treated in the smelters was $32,516,687, while the gross value of the products of the metallurgical industry was $77,996,265.

Subsection 2.—Non-Metallic Mineral Industries.

The non-metallic minerals group is divided into two sub-groups, *viz.*, *Fuels*, including the coal mining, natural gas and petroleum industries; and *Other Non-Metallic Minerals*, of which the asbestos, gypsum and salt-producing industries are the most important. The whole group in 1927 included 922 active concerns with 37,949 employees receiving $48,273,491 in salaries and wages. The capital employed was $279,737,591, and the aggregate value of production $85,205,431.

Coal Mining.—There were 437 coal mines operating in Canada during 1927, of which 292 were in Alberta, 55 in Saskatchewan, 40 in Nova Scotia, 14 in New Brunswick, 35 in British Columbia and 1 in the Yukon. The total capital employed was in excess of $146,000,000, of which $57,000,000 was invested in Nova Scotia, $55,000,000 in Alberta and $28,000,000 in British Columbia. The average number of wage-earners employed throughout the year was 28,357. Earnings per man-day were $5.03, as compared with $4.97 in the previous year, and the total of salaries and wages amounted to $38,955,967 or approximately $3,100,000 more than the 1926 total of $35,841,796.

Asbestos.—The asbestos industry was represented by 7 firms operating 13 mines at which there were mills for the grading of the product. The amount of capital employed was $35,316,821. Employment was furnished to 2,976 persons, and salaries and wages amounted to $3,761,192.

Other Non-Metallic Mineral Industries.—Other industries of importance from the standpoint of employment furnished were:—(1) gypsum-mining, with 1,427 employees, (2) natural gas production, with 1,342 employees, (3) petroleum production, with 781 employees, and (4) salt-mining, with 376 employees.

Subsection 3.—Structural Materials and Clay Products Industries.

The average number of employees in the group in 1927 was 20,382, the salary and wage account being $15,662,514. The average number on the payrolls of the cement industry decreased from 2,340 in 1926 to 2,270 in 1927. The chief division of the clay products industry consisted of 167 establishments actively engaged in the manufacture of brick and tile. In the whole industry, the average yearly wage for all workers was $999, 4,776 employees having received $4,769,307 in salaries and wages.

Section 4.—Production of Metallic Minerals.

Subsection 1.—Gold.

Canada has been a gold-producing country for nearly 70 years. The discovery of gold in paying quantities was an epoch-making event in the history of British Columbia. In the late 50's, alluvial gold was discovered along the Thompson river, and in 1858 the famous Fraser river rush took place. The extraordinarily rich deposits of Williams and Lightning creeks, in the Cariboo district, were discovered in 1860, and three years later the area had a production of alluvial gold valued at $4,000,000. In the northern part of the province, the Atlin division of the Cassiar district was discovered in 1892.

The discovery of gold in the Yukon river was reported in 1869, and bar-mining on the tributaries of the Yukon was conducted with increasing profit between 1881 and 1886. Ten years later, rich discoveries were made in creeks of the Klondike river, a right-bank tributary joining the Yukon at what is now Dawson City, and one of the greatest rushes in history was made to this locality. The richest streams in the district were Bonanza creek and its principal tributary, the Eldorado.

Gold was discovered in Nova Scotia in 1860. Two years after the discovery, gold valued at nearly $142,000 was recovered from the quartz veins; a steady, though in recent years declining, output has been reported since that time.

Although Quebec has been producing gold since 1877, production consisted only of the small quantities recovered in the treatment of the lead and zinc ores of the Notre-Dame-des-Anges district. Important discoveries of copper-gold deposits, however, were more recently made in the northwestern part of the province, adjacent to the Kirkland Lake district of Ontario, and development already carried out indicates a substantial gold production. Smelting facilities became available for this region with the opening of the Noranda smelter in December, 1927, and the preliminary estimate for 1928 shows the resulting increase (Tables 8 and 9).

Although gold was first discovered during 1866 in Hastings Co., no permanent gold industry was established in Ontario until recent years. Gold has been found and worked at many points in Ontario from the lake of the Woods in the west to the Hastings district in the east, a distance of roughly 900 miles. The gold production of the province has increased greatly during the last 15 years, the Porcupine area having been the principal producer since 1912, and the increase in production of the Kirkland Lake camp during the past few years has added materially to the total output. New discoveries of gold in such widely separated districts as Michipicoten bay on lake Superior and Red lake in northwestern Ontario, indicate a continued large production from the province.

The presence of gold-bearing ores in Manitoba has been known for a decade or more. Discoveries have been made in two districts, the first north of The Pas, where the gold occurs in copper ores, and the second east of lake Winnipeg in the Rice Lake area, where the discoveries are mainly auriferous quartz.

Gold production in Canada attained its former maximum in 1900, when the Yukon production reached its highest point and 1,350,057 fine oz. of gold were produced. For the provinces the years in which the greatest yields were obtained were as follows:—Nova Scotia, 1902; Quebec, 1928; Ontario, 1927; Manitoba, 1928; Alberta, 1896; British Columbia, 1913 and Yukon, 1900. The quantity and value of gold produced in Canada are given for 1911 and subsequent years in Tables 8 and 9, 1928 establishing a new record of production with 1,891,050 fine oz. The annual production of gold now ranks second in value among the minerals of Canada, being exceeded only by coal.

8.—Quantity of Gold produced in Canada, by Provinces, calendar years 1911-1928.

NOTE.—For the years 1862 to 1910, see Canada Year Book, 1916-17, pp. 268 and 269.

Years.	Nova Scotia.	Quebec.	Ontario.	Manitoba.	Alberta.	British Columbia.	Yukon Territory.	Total.
	Oz. fine.	Oz. fine.	Oz. fine.	Oz. fine.	Oz. fine.	Oz. fine.	Oz. fine.	Oz. fine.
1911	7,781	613	2,062	–	10	238,496	224,197	473,159
1912	4,385	642	86,523	–	73	251,815	268,447	611,885
1913	2,174	701	219,801	–	–	297,459	282,838	802,973
1914	2,904	1,299	268,264	–	48	252,730	247,940	773,178
1915	6,636	1,099	406,577	–	195	273,376	230,173	918,056
1916	4,562	1,034	492,481	–	82	219,633	212,700	930,492
1917	2,210	1,511	423,261	440	–	133,742	177,667	738,831
1918	1,176	1,939	411,976	1,926	27	180,163	102,474	699,681
1919	850	1,470	505,739	724	24	167,252	90,705	766,764
1920	690	955	564,995	781	–	124,808	72,778	765,007
1921	439	635	708,213	207	49	150,792	65,994	926,329
1922	1,042	–	1,000,340	156	–	207,370	54,456	1,263,364
1923	655	667	971,704	31	–	200,140	60,144	1,233,341
1924	1,047	883	1,241,728	1,180	–	245,719	34,825	1,525,382
1925	1,626	1,602	1,461,039	4,424	–	219,227	47,817	1,735,735
1926	1,678	3,680	1,497,215	188	–	225,866	25,601	1,754,228
1927	3,151	8,331	1,627,050	182	42	183,094	30,935	1,852,785
1928[1]	1,290	60,006	1,578,305	19,813	68	197,199	34,369	1,891,050

[1]Figures for 1928 are subject to revision.

9.—Value of Gold produced in Canada, by Provinces, calendar years 1911-1928.

NOTE.—For the years 1862 to 1910, see Canada Year Book, 1916-17, p. 270.
(Value calculated on basis 1 fine oz.=$20·671834.)

Years.	Nova Scotia.	Quebec.	Ontario.	Manitoba.	Alberta.	British Columbia.	Yukon Territory.	Total.
	$	$	$	$	$	$	$	$
1911	160,854	12,672	42,625	–	207	4,930,145	4,634,574	9,781,077
1912	90,638	13,270	1,788,596	–	1,509	5,205,485	5,549,296	12,648,794
1913	44,935	14,491	4,543,690	–	–	6,149,027	5,846,780	16,598,923
1914	60,031	26,708	5,545,509	–	992	5,224,393	5,125,374	15,983,007
1915	137,180	22,720	8,404,693	–	4,026	5,651,184	4,758,098	18,977,901
1916	94,305	21,375	10,180,485	–	1,695	4,540,216	4,396,900	19,234,976
1917	45,685	31,235	8,749,581	9,095	–	2,764,693	3,672,703	15,272,992
1918	24,310	40,083	8,516,299	39,814	558	3,624,476	2,118,325	14,463,689
1919	17,571	30,388	10,454,553	14,966	500	3,457,406	1,875,039	15,850,423
1920	14,263	19,742	11,679,483	16,145	–	2,580,010	1,504,455	15,814,098
1921	9,075	13,127	14,640,062	4,279	1,013	3,117,147	1,364,217	19,148,920
1922	21,540	–	20,678,862	3,225	–	4,286,718	1,125,705	26,116,050
1923	13,540	13,788	20,086,904	641	–	4,137,261	1,243,287	25,495,421
1924	21,643	18,253	25,668,754	24,393	–	5,079,462	719,897	31,532,443
1925	33,612	33,116	30,202,357	91,452	–	4,531,824	988,465	35,880,826
1926	34,687	76,072	30,950,180	3,886	–	4,669,065	529,220	36,263,110
1927	65,137	172,217	33,634,108	3,762	868	3,784,889	639,483	38,300,464
1928[1]	26,667	1,240,434	32,626,459	409,571	1,405	4,076,465	710,470	39,091,472

[1] Subject to revision.

With the exception of the years 1891 and 1893, when its output was surpassed by that of Nova Scotia, British Columbia was the chief gold producer for a period of 39 years, or up to the year 1897, when its production was less than that of the Yukon. The latter district held first place until 1907, when British Columbia regained the first rank and continued to lead during the next seven years, with the exception of 1912, when the Yukon was again the greatest producer. As a result of the development of the Porcupine and contiguous areas, Ontario passed the other provinces in 1914, and still holds the first place in gold production.

Ontario.—Though gold had been mined in various parts of the province, the production of the metal was comparatively small until 1912, when the first permanent camp was established in the Porcupine area. The total recorded production of gold in Ontario for the period 1887-1912 was 210,040 fine oz., of which more than 40 p.c. was obtained in the year 1912. The production rose from 219,801 fine oz. in 1913 to 492,481 fine oz. in 1916, but fell during the next two years, owing to scarcity of labour. The yield rose to 1,000,340 fine oz. in 1922 and in 1927 reached the record total of 1,627,050 fine oz.

Porcupine Area.—The Porcupine district, the most important gold-mining area of Canada, lies about 150 miles northwest of Cobalt, the present productive portion being limited to the township of Tisdale, an area six miles square.

The gold deposits seem to be generically related to the porphyries which have intruded the older Keewatin greenstones and also the Timiskaming sediments. Rocks of these series are widely distributed throughout the Porcupine district and it is in them that the gold-bearing deposits are found. The theory of deposition is that the intrusion of porphyry fissured the older rocks and opened a way for the circulation of the mineral-bearing siliceous solution which filled the fissures. The application of this theory in the search for new ore bodies has been attended with great success.

Ordinarily from 95 to 97 p.c. of the gold in the ores mined at the Porcupine field is extracted chemically by dissolving it in a weak solution of sodium cyanide, the details of the process varying at the different mines. There are five steps in the cyanide process, which are briefly as follows:—(1) reducing the ore to a size where the gold particles are freed from enclosing rock, carried to a point where the ore is

ground about as fine as cement; (2) dissolving the gold in sodium cyanide solution; (3) separating the solution containing the dissolved gold from the impoverished ore; (4) precipitating of the gold from the solution by zinc dust; and (5) refining the precipitates.

Kirkland Lake.—Of the other gold-producing localities, Kirkland lake, in Timiskaming district, has been the most important. The first gold discovery in the vicinity of Kirkland lake was made in 1911 on a claim now forming part of the Wright-Hargreaves mine. The geological formation is similar, as regards age relationship, to that of the Porcupine district. The rocks are Precambrian, the Keewatin predominating. Unlike the Porcupine, most of the productive veins are found within the porphyry, which is of a syenitic variety. Three principal zones of mineralization have been indicated by exploration:—(1) the main or central zone, which runs in a northeasterly direction along the southern expanse of the lake and along which a group of important mines is being developed over a length of 2¼ miles and a width of ½ mile; (2) a southerly zone which lies about ¾ mile to the south; and (3) a northerly zone known as the Goodfish Lake gold area.

British Columbia.—The production of gold in British Columbia has varied considerably at different periods. Rapid increases took place between 1858 and 1863, when 189,318 fine oz. were obtained by placer mining. Thereafter a decline occurred until 1893, when a low level of 18,360 fine oz. was reached. Then the introduction of lode mining resulted in a rapidly increasing production until 1902, when previous records were surpassed by an output of more than 288,000 fine oz. With the exception of the maximum output of 297,459 fine oz. in 1913, the record of 1902 has not since been equalled. Though the bulk of the gold obtained in the Cordilleran region has been derived from the placer deposits of the central portion of the region from the Klondike on the north almost to the international boundary on the south, yet a large amount, averaging 178,039 fine oz. between 1913 and 1921, was obtained by lode mining, largely of the copper-gold ores of the Rossland and Yale boundary districts. The copper concentrates of the Britannia mine also contain gold, as does the blister copper made at Anyox. The output of gold in British Columbia has been in part maintained by the successful operation of the Premier mine on the Portland canal, while the Nickel Plate property, operated by the Hedley Gold Mining Co., has been a consistent producer of gold bullion and arsenical gold concentrates, which are exported to the United States for treatment.

World Production.—A sketch of the development of the gold-mining industry since the discovery of America may take the form of a reference to four successive periods. During the first period, extending from 1493 to 1760, the annual production averaged nearly 337,000 fine oz. The placer mining of Brazil and Colombia swelled the average output of the last 60 years of the period to about 606,000 fine oz. per year.

The production of Russia from placer mining was a considerable factor in the next period, extending from 1761 to 1840, that country retaining first rank among the world's producers until 1837. The average annual production during the period was 565,500 fine oz.

The third period, extending from 1841 to 1890, was notable for the remarkable discoveries of gold in California and Australia in 1848 and 1851 respectively. The annual average during the 50 years was 4,937,000 fine oz. For the first decade the average was 1,761,000 fine oz. and for the second 6,448,000, while the last decade shaded off to 5,201,000. The production of the period was contributed chiefly by the United States, Australia and Russia.

In the fourth period, extending from 1891 to the present time, the outstanding features were the entry of South Africa as an important and then as the leading producer, and the phenomenal increase in the output of most of the gold-producing countries through the introduction of the cyanide process. The output was 6,320,000 fine oz. in 1891, and a steady increase was recorded until 1915, when a maximum of 22,737,000 fine oz. was produced. Thereafter the great increase in wages and in the other costs of production of an article of fixed value brought about a steady decline to a minimum production of 15,451,945 fine oz. in 1922, increased to 17,790,597 fine oz. in 1923, to 19,025,942 in 1925 and to 19,397,757 in 1927.

In 1927 the world's chief producers were the Union of South Africa, with a production of 10,122,491 fine oz. or 52·2 p.c., the United States, producing 2,117,253 fine oz. or 10·9 p.c., and Canada, producing 1,844,544 fine oz. or 9·5 p.c. As Australia, Rhodesia and British India were also important producers, over 70 p.c. of the world production of 1927 was produced in the British Empire.

For detailed statistics of the gold production of the world for 1926 and 1927 see Table 10.

10.—Quantity and Value of the World's Production of Gold and Silver for the calendar years 1926 and 1927.

(From the Annual Report of the Director of the United States Mint.)

Countries.	Calendar year 1926.				Calendar year 1927.			
	Gold.		Silver.		Gold.		Silver.	
	Ounces Fine.	Value.	Ounces. Fine.	Value ($0·62873 per oz.)[1]	Ounces Fine.	Value.	Ounces Fine.	Value ($0·57070 per oz.)[1]
North America—		$		$		$		$
United States...	2,238,616	46,276,299	62,672,953	39,404,366	2,117,253	43,767,500	60,394,199	34,466,969
Canada.....	1,754,228	36,263,111	22,371,924	14,065,900	1,844,544	38,130,108	22,613,134	12,905,315
Mexico.....	772,661	15,972,320	98,291,166	61,798,605	725,175	14,990,698	104,573,919	59,680,336
Total.....	4,765,505	98,511,730	183,336,043	115,268,871	4,686,972	96,888,306	187,581,252	107,052,620
Central America and West Indies[2]	87,075	1,800,000	3,499,118	2,200,000	72,563	1,500,000	3,154,021	1,800,000
South America—								
Argentina[3].....	2,419	50,000	15,000	9,431	967	20,000	15,000	8,560
Bolivia.....	332[4]	6,863	5,834,003	3,668,013	241	4,982	5,402,840	3,083,401
Brazil.....	102,108	2,110,759	20,672	12,997	100,000[3]	2,067,183	20,000[3]	11,414
Chile.....	59,132	1,222,364	2,876,911	1,808,800	60,000[3]	1,240,310	2,900,000[3]	1,655,030
Colombia.....	71,658	1,481,293[4]	125,953	79,191[4]	72,563	1,500,000[3]	131,417	75,000[3]
Ecuador.....	62,486	1,291,700	80,000[3]	50,298	64,242	1,328,000	87,601	49,994
Guiana—								
British.....	6,516	134,696			5,714	118,119		
Dutch.....	7,526	155,574	8,000[3]	5,030	7,684	158,842	8,000[3]	4,566
French.....	45,235	935,090			48,354	999,566		
Peru.....	120,241	2,485,602	21,499,798	13,517,568	92,656	1,915,369	18,295,408	10,441,189
Venezuela.....	30,542	631,359	3,215	2,021	39,366	813,767[4]	3,215	1,835
Total.....	508,195	10,505,300	30,463,552	19,153,349	491,787	10,166,138	26,863,481	15,330,989
Europe—								
Austria.....	1,318	27,245	14,050	8,833	129	2,667	9,677	5,523
Czechoslovakia..	7,716	159,503	765,491	481,287	7,500[3]	155,039	750,000[3]	428,025
France.....	42,010	868,424	261,830	164,620	45,010	930,439	308,640	176,141
Germany.....	5,208	107,659	5,358,858	3,369,275	5,000[3]	103,359	5,500,000[3]	3,138,850
Great Britain....	–	–	41,345	25,995	–	–	46,714	26,660
Greece.....	–	–	254,274	159,870	482	9,964	241,125	137,610
Italy.....	1,704	35,225	519,351	326,531	2,154	44,527	537,098	306,522
Norway.....	–	–	308,640	194,051	–	–	321,821	183,663
Poland.....	–	–	271,700	170,826	–	–	–	–
Rumania.....	55,652	1,150,429	93,685	58,902	66,165	1,367,752	140,688	80,291
Russia.....	992,155	20,509,659	250,000[3]	157,182	1,060,950	21,931,783	321,500	183,480

[1]Average price per fine ounce in London.
[2]Estimate based on United States imports of ore and bullion.
[3]Estimate based on other years' production. [4] Amount exported.

10.—Quantity and Value of the World's Production of Gold and Silver for the calendar years 1926 and 1927—concluded.

(From the Annual Report of the Director of the United States Mint.)

Countries.	Calendar year 1926.				Calendar year 1927.			
	Gold.		Silver.		Gold.		Silver.	
	Ounces Fine.	Value.	Ounces Fine.	Value ($0·62873 per oz.)[1]	Ounces Fine.	Value.	Ounces Fine.	Value ($0·57070 per oz.)[1]
Europe—concluded		$		$		$		$
Spain	967	20,000[3]	3,000,656	1,886,602	967	20,000[3]	3,056,565	1,744,382
Sweden	14,789	305,716	80,375	50,534	14,789	305,716	80,375	45,870
Turkey	964	19,927	225,050	141,495	964	19,927	225,050	128,438
Yugoslavia	10,384	214,656	45,010	28,299	12,410	256,537	53,755	30,676
Total	1,132,867	23,418,443	11,490,315	7,224,302	1,216,520	25,147,710	11,593,008	6,616,131
Asia—								
British India	383,970	7,937,362	5,124,962	3,222,217	384,268	7,943,524	6,024,806	3,438,357
China	110,000[3]	2,273,901	135,000[3]	84,878	100,000[3]	2,067,183	100,000[3]	57,070
Chosen (Korea)	190,620	3,940,471	51,927	32,648	190,000[3]	3,927,648	52,000[3]	29,676
East Indies—								
British	19,350	400,000[3]	–	–	19,350	400,000[3]	–	–
Dutch	115,354	2,384,578	2,363,829	1,486,210	113,071	2,337,385	2,285,801	1,304,507
Fed. Malay Stat.	14,475	299,225	–	–	10,706	221,313	–	–
Indo-China	321	6,635	–	–	321	6,635	10,159	5,798
Japan	307,862	6,364,082	4,776,110	3,002,884	308,000[3]	6,366,925	4,800,000[3]	2,739,360
Philippine Islds.	91,242	1,886,139	44,013	27,672	79,314	1,639,566	28,356	16,183
Sarawak	243	5,023	–	–	243	5,023	–	–
Taiwan	9,035	186,762[5]	14,314	9,000[5]	9,000[3]	186,046	15,000[3]	8,560
Total	1,242,472	25,684,178	12,510,155	7,865,509	1,214,273	25,101,248	13,316,122	7,599,511
Oceania—								
Australia—								
New South Wales	19,435	401,757	9,709,741	6,104,805	18,032	372,754	6,005,341[3]	3,427,248
Northern Territory	140	2,894	–	–	174	3,597	–	–
Queensland	9,086	187,824	252,540	158,779	37,979	785,096	84,118	48,006
South Australia	758	15,669	353	222	418	8,641	179	102
Victoria	49,078	1,014,532	2,373	1,492	38,538	796,651	1,471	839
West Australia	437,343	9,040,680	68,413[4]	43,013	408,353	8,441,406	49,895	28,475
Tasmania	4,166	86,119	766,653	482,018	4,860	100,465	741,782	423,335
Papua	6,388	132,052[6]	–	–	6,150	127,132	4,494	2,565
New Zealand	125,777[4]	2,600,041	425,287[4]	267,391	129,519	2,677,383[4]	427,358[4]	243,893
Total	652,171	13,481,568	11,225,360	7,057,720	644,023	13,313,125	7,314,638	4,174,463
Africa—								
Abyssinia	20,000[3]	413,436	–	–	21,605	446,615	–	–
Algeria	–	–	169,141	106,344	–	–	118,087	67,392
Belgian Congo	132,201	2,732,836	–	–	125,417	2,592,599	10,609	6,054
Bechuanaland	4,296	88,806	457	287	3,807	78,698	418	238
British West Africa (Gold Coast, Ashanti, Nigeria)	199,666	4,127,461	–	–	171,607	3,547,431	–	–
Egypt	643	13,292	–	–	64	1,323	–	–
French West Africa	9,966	206,015	–	–	6,848	141,561	–	–
Kenya Colony	779	16,103	–	–	655	13,540	–	–
Madagascar	9,870	204,031	–	–	10,352	213,995	–	–
Portuguese East Africa	9,127	188,684	1,125	707	9,521	196,816	682	389
Rhodesia—								
Northern	779	16,103	7,739	4,866	350	7,235	18,344	10,469
Southern	593,429	12,267,263	110,024	69,175	581,438	12,019,390	113,241	64,627
Southwest Africa	–	–	–	–	984	20,341	–	–
Swaziland	1,309	27,059	–	–	1,135	23,462	–	–
Sudan	8,714	180,134	–	–	7,166	148,145	–	–
Tanganyika	7,202	148,878	804	505	8,179	169,075	916	523
Transvaal, Cape Colony and Natal	9,962,852	205,950,429	981,333	616,993	10,122,491	209,250,460	1,011,736	577,398
Total	10,960,833	226,580,530	1,270,623	798,877	11,071,619	228,870,686	1,274,033	727,090
Total for world	**19,349,118**	**399,981,749**	**253,795,166**	**159,568,628**	**19,397,757**	**400,987,213**	**251,096,555**	**143,309,804**

[4]Amount exported. [5]Last year's figures. [6]For years ending June 30, 1926 and 1927, respectively.

Subsection 2.—Silver.

Although no official statistics of the production of silver were published prior to 1887 the annual reports of the operating companies showed that from 1869 to 1885 about 4,000,000 oz. of silver, with a probable value of $4,800,000, were produced in the Port Arthur district in Ontario. From 1887 to 1893 the annual production ranged in value between $300,000 and $400,000, and was derived chiefly from Ontario and Quebec. The next three years saw a rapid increase in production, due to the development of the silver-lead deposits of British Columbia, and in 1896 a production of over $2,000,000 was recorded. From that year until 1905 the production varied between $2,000,000 and $3,500,000, rising rapidly during the next five years to $17,580,455 in 1910, as a result of the discovery of the rich ores of the Cobalt district. Since then there has been a falling-off in quantity, but owing to the higher price of the metal the value of the annual production increased to a maximum of $20,693,704 in 1918. The post-war depression and the decline in the value of silver caused a low value of production in 1921, but in recent years the industry has been recovering, and Canada in 1927 retained its place as the third largest producer of silver in the world, ranking after Mexico and the United States and followed fairly closely by Peru.

The silver production of Canada is chiefly credited to the rich silver-cobalt ores of Northern Ontario, the copper-gold-silver and the silver-lead-zinc ores of British Columbia and the silver-lead ores of the Yukon Territory. A certain amount also occurs in combination with the gold ores of Northern Ontario and the nickel ores of the Sudbury district.

Ontario.—The production of silver in Ontario in 1927 was 9,307,953 fine oz., valued at $5,246,893, practically the whole of which was derived from the rich silver-bearing ores of the Cobalt district, but small quantities are obtained from the products of the nickel refineries and from gold bullion.

The Cobalt camp was discovered in 1903, when the Timiskaming and Northern Ontario railway was being built from North Bay to the head of lake Timiskaming. This was at Long lake, subsequently christened "Cobalt lake", and the surrounding area became known as the Cobalt silver camp.

From 1904 to 1911 the output of silver increased rapidly year by year. In 1911 the province of Ontario reported a production from that camp of 31,507,791[1] fine oz., the value of which was $15,953,847. In 1912 the output was nearly as great, being 30,243,859[1] fine oz., but prices had gone up and the value was greater, namely, $17,408,935. Since that time the production has been declining, but the life of the camp has been prolonged by the finding of "blind" veins and by improvements in the methods of extraction which have permitted the working of ores of a grade too low for profit by the former methods.

The Gowganda camp, which lies about 55 miles northwest of Cobalt, has been the source of much high-grade silver ore, mainly from the Miller Lake-O'Brien and Castle-Tretheway mines. This section has been more or less handicapped by its distance from the railway and lack of facilities for transportation. A good wagon

[1]These figures are taken from reports of the Ontario Department of Mines, by which silver production, until recent years, was computed on a different basis from that used for Table 12 following.

road has now been completed from the railway at Elk Lake, on a branch line of the Timiskaming and Northern Ontario railway. In addition a hydro-electric power transmission line has been extended from Elk Lake to Gowganda. With these added facilities, a number of mines in the camp are enlarging their operations. The history of the South Lorrain camp, which lies about 18 miles to the southeast of Cobalt, on the shore of lake Timiskaming, is characteristic. It was worked for some time and then closed up, the conclusion having been reached that the camp was worked out. The Keeley mine turned out later to be extremely rich, producing in 1924 nearly 2,000,000 oz. of silver.

British Columbia.—In 1926 for the first time since 1905 this province surpassed Ontario in silver production. Most of the British Columbia output of silver is now derived from the ores of the Sullivan mine near Kimberley and the Premier mine at Premier. Other sources of silver in this province are the silver-lead-zinc ores of East and West Kootenay, the gold-copper ores of the Rossland, the Boundary and the Coast districts.

Production in 1927 was the greatest on record and amounted to 11,040,445 fine oz., valued at $6,223,499, as against 10,625,816 fine oz. valued at $6,599,376, in 1926. Small amounts were recovered with alluvial gold and from gold bullion, but the Sullivan and Premier mines were responsible for the greater part of the output from this province. The Sullivan, primarily noted for its lead and zinc production, is the largest producer of silver in Canada. Silver was also recovered from the copper ores and concentrates which were exported for treatment in foreign smelters and from blister copper made at the Trail and Anyox smelters.

Yukon Territory.—The production of silver from the Yukon Territory in 1927 amounted to 1,647,295 fine oz., derived chiefly from the silver-lead ores exported from the Mayo district. For some years the difficulties and high cost of transportation involved in the export of these ores were a serious obstacle to the successful operation of the mines. However, in the summer of 1925 the Treadwell Yukon Co. of Keno Hill, the largest producer in the district, completed a concentrating plant which has since been kept working at full capacity. By eliminating much of the waste from the ores, concentration reduces the transportation costs. Ores from neighbouring mines are treated at this mill and this feature is of great assistance to the smaller operators in the district.

The quantity of silver obtained from placer gold is gradually decreasing. The quantities obtained from this source each year since 1920 have been as follows:—14,831 fine oz. in 1921; 12,233 in 1922; 13,476 in 1923; 7,853 in 1924; 10,759 in 1925; 5,702 in 1926, and 6,925 in 1927.

World Production of Silver.—The world production of silver was estimated at 251,096,555 fine oz. for 1927, an increase of 20·4 p.c. over the pre-war figure of 1913, given as 208,690,446 fine oz. The silver production of Canada in 1927 was 22,736,698 fine oz. For the quantity and value of the world's production in 1926 and 1927, see Table **16** of this chapter.

Statistics of the quantity and value of silver produced in Canada are given for the years since 1887 in Table **11**, while statistics of the quantity and value produced in the various provinces are given for 1911 and subsequent years in Table **12**.

11.—Quantity and Value of Silver Produced in Canada during the calendar years 1887-1928.

Years.	Quantity.	Value.	Years.	Quantity.	Value.	Years.	Quantity.	Value.
	oz.	$		oz.	$		oz.	$
1887	355,083	347,271	1901	5,539,192	3,265,354	1915	26,625,960	13,228,842
1888	437,232	410,998	1902	4,291,317	2,238,351	1916	25,459,741	16,717,121
1889	383,318	358,785	1903	3,198,581	1,709,642	1917	22,221,274	18,091,895
1890	400,687	419,118	1904	3,577,526	2,047,095	1918	21,383,979	20,693,704
1891	414,523	409,549	1905	6,000,023	3,621,133	1919	16,020,657	17,802,474
1892	310,651	272,130	1906	8,473,379	5,659,455	1920	13,330,357	13,450,330
1893	–	330,128	1907	12,799,799	8,348,659	1921	13,543,198	8,485,355
1894	847,697	534,049	1908	22,106,233	11,686,239	1922	18,626,439	12,576,758
1895	1,578,275	1,030,299	1909	27,529,473	14,178,504	1923	18,601,744	12,067,509
1896	3,205,343	2,149,503	1910	32,869,264	17,580,455	1924	19,736,323	13,180,113
1897	5,558,456	3,323,395	1911	32,559,044	17,355,272	1925	20,228,988	13,971,150
1898	4,452,333	2,593,929	1912	31,955,560	19,440,165	1926	22,371,924	13,894,531
1899	3,411,644	2,032,658	1913	31,845,803	19,040,924	1927	22,736,698	12,816,677
1900	4,468,225	2,740,362	1914	28,449,821	15,593,631	1928[1]	21,922,795	12,753,806

[1] Preliminary figures.

12.—Quantity and Value of Silver Produced in Canada, by Provinces, during the calendar years 1911-1928.

NOTE.—For the years 1887 to 1910, see Canada Year Book, 1916-1917, p. 271. Nova Scotia, Manitoba and Alberta have also shown a small production in recent years.

Years.	Ontario.		Quebec.		British Columbia.		Yukon Territory.	
	oz.	$	oz.	$	oz.	$	oz.	$
1911	30,540,754	16,279,443	18,435	9,827	1,887,147	1,005,924	112,708	60,078
1912	29,214,025	17,772,352	9,465	5,758	2,651,002	1,612,737	81,068	49,318
1913	28,411,261	16,987,377	34,573	20,672	3,312,343	1,980,483	87,626	52,393
1914	25,139,214	13,779,055	57,737	31,646	3,159,897	1,731,971	92,973	50,959
1915	22,748,609	11,302,419	63,450	31,524	3,565,852	1,771,658	248,049	123,241
1916	21,608,158	14,188,133	98,610	64,748	3,392,872	2,227,794	360,101	236,446
1917	19,301,835	15,714,975	136,194	110,885	2,655,994	2,162,430	119,605	97,379
1918	17,198,737	16,643,562	178,675	172,907	3,921,336	3,794,755	71,915	69,594
1919	12,117,878	13,465,628	140,926	156,606	3,713,537	4,126,556	27,556	30,621
1920	9,907,626	9,996,795	61,003	61,552	3,327,028	3,356,971	19,190	19,363
1921	9,761,607	6,116,037	38,084	23,861	3,350,357	2,099,133	363,092	246,288
1922	10,811,903	7,300,305	–	–	7,150,937	4,828,384	663,493	447,997
1923	10,540,943	6,838,226	33,006	21,412	6,113,327	3,965,899	1,914,438	1,241,953
1924	11,272,567	7,527,933	83,814	55,972	8,153,003	5,444,657	226,755	151,429
1925	10,529,131	7,271,944	214,943	148,451	8,579,458	5,925,403	904,893	624,964
1926	9,274,965	5,760,402	375,986	233,513	10,625,816	6,599,376	2,095,027	1,301,159
1927	9,307,953	5,246,893	740,864	417,625	11,040,445	6,223,499	1,647,295	928,580
1928[1]	7,234,414	4,208,693	910,364	529,613	10,943,502	6,366,492	2,832,668	1,647,933

[1] Preliminary figures.

Subsection 3.—Copper.

The copper-mining industry has developed at a very rapid rate. A production of 3,505,000 lb. in 1886 had doubled 6 years later. In 1913, the output had increased over twenty-one fold, amounting to 76,976,925 lb. The extraordinary demand for war requirements resulted in an average production from 1916 to 1918 of 115,048,931 lb. In the post-war depression production dropped to less than 43,000,000 lb. in 1922, but recovered rapidly and in 1927 reached the record of 140,147,440 lb., while the preliminary estimate for 1928 indicates a further increase of 44 p.c. in that year to 201,940,172 lb.

Ontario.—The Sudbury deposits were first noted in 1856, but did not attract attention until 1883-4, during the period of the construction of the Canadian Pacific railway, when a railway cutting was made through the small hill on which the Murray mine was afterwards located. During the first few years the deposits were exploited for their copper contents alone; not until 1886 was the presence of nickel determined and the true value of the ores made known. The nickel-copper ores of the Sudbury area are the source of nearly all the copper produced in Ontario. The ores contain from 1 to 3 p.c. of copper, the copper content of the ores mined tending recently to increase. The International Nickel Co., Ltd., has a smelting plant at Copper Cliff and a refinery at Port Colborne. The principal mining properties are the Creighton and the Frood. The smelter of the Mond Nickel Co. is at Coniston, and the copper-nickel matte is exported to their refinery at Swansea, Wales. The principal mines are the Garson, Levack and Frood Extension. Interest in the operations carried on by these two large companies in the Sudbury area has increased during 1927 and 1928, owing to developments in connection with the Frood ore bodies, where large masses of immensely rich ore are being opened up.

British Columbia.—The production of copper in the province during 1927 amounted to 91,686,297 lb., which was 65 p.c. of the total Canadian production for the year. This total included the blister copper produced at Anyox by the Granby Consolidated Mining, Smelting and Power Co., Ltd., the blister copper and copper in copper sulphate made by the Consolidated Mining and Smelting Co., Ltd., at Trail, and the copper estimated as recoverable from the ores and concentrates exported. The principal copper-producing mines in British Columbia are the Britannia mine on Howe sound, which ships its concentrates to Tacoma, the Hidden Creek mine on Portland canal, and the Allenby Copper Corporation, the last two mentioned being owned and operated by the Granby Consolidated. The Hidden Creek ores are smelted at the Anyox smelter and the Allenby concentrates are shipped to the Trail smelter.

Manitoba.—Much development has been carried on in the Flin Flon district of Manitoba in the last ten years. and large bodies of ore have been proven on the Flin Flon property of the Hudson Bay Mining and Smelting Co. and the Sherritt-Gordon property. A branch of the Hudson Bay railway has been extended 87 miles to the Flin Flon mine. It is proposed to erect a smelter there, while a large hydraulic development on the Churchill river is required to provide the necessary power. During the 4 years 1917-1920, with the high prices prevailing for copper, ores containing 9,866,328 lb. of copper were exported by the Mandy mine.

Quebec.—Until 1894, when Ontario took the lead, Quebec was the chief copper-producing province of Canada, the principal mines being the Eustis and Huntingdon properties in the Eastern Townships. These mines produced ores from which both copper and sulphur were recovered. There is still a small annual production from this field. However, recent discoveries in the Rouyn camp of northwestern Quebec have brought a greatly increased production of copper in 1928. These deposits lie in an easterly extension of the formations found in the Kirkland Lake area of Ontario. The first discoveries in the district were located as gold prospects; the existence of large bodies of copper and zinc ores was subsequently proved and the production of copper will probably exceed in value that of gold. A branch line from the Canadian National railway was completed into the camp during 1926, and the construction of a copper smelter at the Noranda mine was completed and

production began in December 1927. Hydro-electric power is supplied from power plants on the Quinze river. In the autumn of 1927, the Nipissing Central connected its line from Cheminis on the Ontario-Quebec boundary with Rouyn.

World's Production of Copper.—The world's production of copper was estimated at 1,674,818 short tons in 1927, as compared with 1,630,590 tons in the preceding year. Canada had an output of 70,074 tons in 1927, producing about 4·2 p.c. of the world's estimated total.

13.—Quantity and Value of Copper Produced in Canada, by Provinces, calendar years 1911-1928.

NOTE.—For the years 1886 to 1910, see Canada Year Book, 1916-17, p. 272. For production in Manitoba and Yukon between 1912 and 1920, included in total, see 1926 Year Book, p. 345.

Years.	Ontario.		Quebec.		British Columbia.		Total.	
	lb.	$	lb.	$	lb.	$	lb.	$
1911.....	17,932,263	2,219,297	2,436,190	301,503	35,279,558	4,366,198	55,648,011	6,886,998
1912.....	22,250,601	3,635,971	3,282,210	536,346	50,526,656	8,256,561	77,832,127	12,718,548
1913.....	25,885,929	3,952,522	3,455,887	527,679	45,791,579	6,991,916	76,976,925	11,753,606
1914.....	28,948,211	3,937,536	4,201,497	571,488	41,219,202	5,606,636	75,735,960	10,301,606
1915.....	39,361,464	6,799,693	4,197,482	725,115	56,692,988	9,793,714	100,785,150	17,410,635
1916.....	44,997,035	12,240,094	5,703,347	1,551,424	63,642,550	17,312,046	117,150,028	31,867,150
1917.....	42,867,774	11,651,461	5,015,560	1,363,229	57,730,959	15,691,275	109,227,332[2]	29,687,989[2]
1918.....	47,074,475	11,593,502	5,869,649	1,445,577	62,865,681	15,482,560	118,769,434	29,250,536
1919.....	24,346,623	4,550,627	2,691,695	503,105	44,502,079	8,317,884	75,053,581	14,928,265
1920.....	32,059,993	5,596,392	880,638	153,724	45,319,771	7,911,019	81,600,691	14,244,217
1921.....	12,821,385	1,602,930	352,308	44,045	34,447,127	4,306,580	47,620,820	5,953,555
1922.....	10,943,636	1,464,477	–	–	31,936,182	4,273,700	42,879,818	5,738,177
1923.....	31,656,800	4,565,227	–	–	55,224,737	7,963,959	86,881,537	12,529,186
1924.....	37,113,193	4,833,622	1,893,008	246,546	65,451,246	8,524,370	104,457,447	13,604,538
1925.....	39,718,777	5,577,311	2,510,141	352,474	69,221,600	9,720,097	111,450,518	15,649,882
1926.....	41,312,867	4,828,964	2,674,058	368,886	89,108,017	12,292,450	133,094,942	17,490,300
1927.....	45,341,295	4,946,533	3,119,848	403,084	91,686,297	11,845,870	140,147,440	17,195,487
1928[1].....	66,440,240	8,745,778	33,959,481	4,947,895	101,540,451	14,794,444	201,940,172	28,488,118

[1] Preliminary figures.
[2] Includes 36,960 lb., valued at $10,045, from New Brunswick and Alberta, not given separately.

14.—Copper Production of Seven Countries and of the World, 1913-1927.[1]

(In short tons of 2,000 pounds.)

Years.	United States.	Mexico.	Canada.	Chile.	Peru.	Spain and Portugal.	Japan.	World's production.
1913.....	614,255	58,185	38,460	46,574	30,600	39,683	73,283	1,072,674
1914.....	579,133	40,043	37,498	49,221	29,853	29,652	77,650	1,021,233
1915.....	712,126	34,128	52,016	57,680	38,269	40,895	83,108	1,188,172
1916.....	971,123	60,751	52,880	78,559	47,472	39,021	110,900	1,533,294
1917.....	961,016	52,348	55,790	112,985	49,784	45,084	119,058	1,579,675
1918.....	968,687	83,233	58,068	117,851	48,944	50,596	99,583	1,569,523
1919.....	604,642	66,661	39,789	87,721	43,243	38,581	86,468	1,069,437
1920.....	635,248	49,866	39,121	109,075	36,356	25,353	74,727	1,082,652
1921.....	238,420	13,576	22,632	65,299	36,689	36,596	59,626	600,960
1922.....	511,970	29,842	25,300	142,830	40,133	40,234	59,663	995,045
1923.....	754,000	60,538	40,230	201,042	48,684	57,115	70,315	1,411,980
1924.....	819,000	49,150	51,008[2]	209,855	38,495	60,713	69,378	1,522,394
1925.....	854,000	59,123	56,239[2]	209,654	41,180	63,933	72,413	1,587,001
1926.....	878,000	62,303	64,123[2]	223,015	46,703	63,933	72,277	1,630,590
1927.....	847,419	63,760	70,698[2]	264,242	52,438	60,351	69,872	1,674,818

[1] From the Year Book of the American Bureau of Metal Statistics, New York.
[2] The final official statement indicated a production of 52,229 tons in Canada during 1924, 55,725 tons in 1925, 66,547 tons in 1926, and 70,074 tons in 1927.

Subsection 4.—Lead.

Lead is obtained in Canada largely from the deposits of British Columbia. From 88,665 lb. in 1891 the production advanced to over 39,000,000 lb. in 1897, an average increase of about 6,500,000 lb. per year. Owing to the low price of silver

in 1898 and labour troubles in the Slocan in 1899, the output fell off to 21,900,000 lb. in 1899, but rose to 63,200,000 in 1900. This increase was due to the development of two or three mines in the Fort Steele mining division, although all the lead-producing districts except Ainsworth showed a material increase in production. The output fell to 18,100,000 lb. in 1903, owing to the condition of the market affecting the production of the low-grade silver-lead ores of the East Kootenay district. An Act was passed in October, 1903, providing for the payment of bounties on lead contained in lead-bearing ores mined in Canada, and as a direct result of the bounty the output increased to 56,900,000 lb. in 1905, but fell off gradually to 23,800,000 lb. in 1911. A steady improvement has since been experienced, a record total of 311,423,161 lb. being reached in 1927, while the preliminary estimate for 1928 is 334,830,237 lb.

British Columbia.—In the East Kootenay district, the Consolidated Mining and Smelting Co. operates many important mines, the principal of which is the Sullivan lead-zinc mine near Kimberley. The ore averages about 11 p.c. lead, 7 p.c. zinc and 5 ounces of silver to the ton. In the West Kootenay district the ores are chiefly argentiferous galena and zinc-blende, occurring as veins in granites and slates. The ores range from 7 p.c. to 75 p.c. of lead, with considerable values of silver. The Consolidated Mining and Smelting Co. has extended its facilities for mining, milling and smelting. This accounts to a considerable extent for the rapid growth in lead production during the last few years.

Ontario.—Lead-mining in Ontario is intimately associated with the successful operations of the Galetta mine and smelter. Recent discoveries in the Sudbury basin area have disclosed large bodies of lead-zinc ore. These properties are under development but no production has come from them as yet.

15.—Quantity and Value of Lead Produced from Canadian Ores, calendar years 1887-1928.

Years.	Quantity.[1]	Value.	Cents per pound.[1]	Years.	Quantity.[1]	Value.	Cents per pound.[1]
	lb.	$			lb.	$	
1887	204,800	9,216	5·400	1908	43,195,733	1,814,221	4·200
1888	674,500	29,812	4·420	1909	45,857,424	1,692,139	3·690
1889	165,100	6,488	3·930	1910	32,987,508	1,216,249	3·687
1890	105,000	4,704	4·480	1911	23,784,969	827,717	3·480
1891	88,665	3,857	4·350	1912	35,763,476	1,597,554	4·467
1892	808,420	33,064	4·090	1913	37,662,703	1,754,705	4·659
1893	2,135,023	79,636	3·730	1914	36,337,765	1,627,568	4·479
1894	5,703,222	187,636	3·290	1915	46,316,450	2,593,721	5·600
1895	16,461,794	531,716	3·230	1916	41,497,615	3,532,692	8·513
1896	24,199,977	721,159	2·980	1917	32,576,281	3,628,020	11·137
1897	39,018,219	1,396,853	3·580	1918	51,398,002	4,754,315	9·250
1898	31,915,319	1,206,399	3·780	1919	43,827,669	3,053,037	6·966
1899	21,862,436	977,250	4·470	1920	35,953,717	3,214,262	8·940
1900	63,169,821	2,760,521	4·370	1921	66,679,592	3,828,742	5·742
1901	51,900,958	2,249,387	4·334	1922	93,307,171	5,817,702	6·219
1902	22,956,381	934,095	4·069	1923	111,224,466	7,985,522	7·179
1903	18,139,283	768,562	4·237	1924	175,485,499	14,221,345	8·104
1904	37,531,244	1,617,221	4·309	1925	253,590,578	23,127,460	9·120
1905	56,864,915	2,676,632	4·707	1926	283,801,265	19,240,661	6·751
1906	54,608,217	3,089,187	5·657	1927	311,423,161	16,477,139	5·256
1907	47,738,703	2,542,086	5·325	1928[2]	334,830,237	15,474,003	4·576

[1] Previous to 1913 the figures reported show the metal content of the shipments and are somewhat in excess of the actual amount recovered. Since 1912 the data given represent the quantity of lead produced in Canada from domestic ores, together with the estimated lead recovery from lead ores and concentrates exported. From 1887 to 1908, average prices at New York; 1909 and 1910, average prices at Toronto; from 1911 to 1925, average prices in Montreal; in 1926 and 1927 the average yearly price at London, Eng., was used in making up the values shown. [2] Preliminary figures.

World's Production.—The world's production of lead in 1927 was about 1,856,441 short tons. The principal producers were the United States with 36 p.c., Mexico 15 p.c., Australia 10 p.c., Canada 8·4 p.c. and Spain 8·2 p.c.

Subsection 5.—Nickel.

With the exception of the nickel in the ores shipped from the Cobalt district the Canadian production of nickel is derived entirely from the well-known nickel-copper deposits of the Sudbury district, Ontario. From 830,477 lb. in 1889 the production of nickel increased continually to 92,500,000 lb. in 1918, constituting a record. After a slump to 19,293,000 lb. and 17,597,000 lb. in 1921 and 1922 respectively there was an increase to 73,857,114 lb. in 1925, followed by a drop to 65,714,294 lb. in 1926 and 66,798,717 lb. in 1927. The preliminary estimate for 1928 indicates a record production of 96,755,578 lb., exceeding that of the war year 1918.

In recent years the producing companies have instituted researches to find new peace-time uses for the metal. The success attending their efforts in that direction accounts very largely for the marked recovery in production during the past few years. The automobile industry, electrical machinery, cooking utensils, new submarine cables and various nickel alloys are all helping to absorb this increased production.

Sudbury.—The nickel-bearing rocks of the Sudbury district, with a width of about two and one-half miles, form a wide ellipse 36 miles long and 13 miles broad. The ores consist mainly of a mixture of pyrrhotite and chalcopyrite associated with norite, a basic intrusive rock. The nickel occurs in the pyrrhotite as pentlandite and varies somewhat in amount. The ore mined in the district varies considerably in richness, the average metal content being about 2 to 4 p.c. of nickel, 1 to 3 p.c. of copper and 45 p.c. iron. Cobalt, gold, silver, platinum and palladium are nearly always present in very small quantities. The matte produced by the companies at Sudbury has averaged about 50 p.c. nickel and 30 p.c. copper.

World's Production.—The world's production of nickel was about 37,898 short tons in 1927, of which output 90·0 p.c. was Canadian in origin[3], while about 10·0 p.c. was derived from the oxidized ores of New Caledonia. The proved deposits of nickel ore in Canada are estimated to contain 2,000,000 tons of nickel, and there are at present large reserves undeveloped.

16.—Quantity and Value of Nickel Produced in Canada during the calendar years 1889-1928.

Years.	Quantity.	Value.	Years.	Quantity.	Value.	Years.	Quantity.	Value.
	lb.	$		lb.	$		lb.	$
1889.....	830,477	498,286	1902...	10,693,410	5,025,903	1915...	68,308,657	20,492,597
1890.....	1,435,742	933,232	1903...	12,505,510	5,002,204	1916...	82,958,564	29,035,498
1891.....	4,035,347	2,421,208	1904...	10,547,883	4,219,153	1917...	82,330,280	33,732,112
1892.....	2,413,717	1,399,956	1905...	18,876,315	7,550,526	1918...	92,507,293	37,002,917
1893.....	3,982,982	2,071,151	1906...	21,490,955	8,948,834	1919...	44,544,883	17,817,953
1894.....	4,907,430	1,870,958	1907...	21,189,793	9,535,407	1920...	61,335,706	24,534,282
1895.....	3,888,525	1,360,984	1908...	19,143,111	8,231,538	1921...	19,293,060	6,752,571
1896.....	3,397,113	1,188,990	1909...	26,282,991	9,461,877	1922...	17,597,123	6,158,993
1897.....	3,997,647	1,399,176	1910...	37,271,033	11,181,310	1923...	62,453,843	18,332,077
1898.....	5,517,690	1,820,838	1911...	34,098,744	10,229,623	1924...	69,536,350	12,126,739[1]
1899.....	5,744,000	2,067,840	1912...	44,841,542	13,452,463	1925...	73,857,114	15,946,672[1]
1900.....	7,080,227	3,327,707	1913...	49,676,772	14,903,032	1926...	65,714,294	14,374,163[1]
1901.....	9,189,047	4,594,523	1914...	45,517,937	13,655,381	1927....	66,798,717	15,262,171[1]
						1928[2]...	96,755,578	22,318,907[1]

[1] A change in the method of computing the value of nickel produced accounts for the drop in value after 1923. [2] Preliminary figures. [3] This figure includes some nickel produced in the U.S. as a by-product from the electrolytic refining of Canadian copper; such nickel is not included in the table.

Subsection 6.—Cobalt.

The major portion of the world's supply of cobalt has for almost two decades been derived from the silver-cobalt-nickel arsenides of the Cobalt district, the silver refineries at Thorold and Deloro in Ontario having practically controlled the world's production until recent years. Large deposits of cobalt-bearing ores occur in central Africa, and the introduction into the world's markets of cobalt from this source has limited the market for the Canadian product to the extent that since 1926 Canada has dropped back to second place in the world's production.

The ore bodies at Cobalt, discovered in 1903, carry silver, cobalt, nickel and arsenic. The Deloro smelter treats ores and residues and disposes of cobalt oxide, metallic cobalt and unseparated oxides of nickel and cobalt. The cobalt residues from the cyanide process are for the most part treated in Canada, though some are shipped abroad for treatment. The smelter output of cobalt, computed as the metallic contents of cobalt oxide, nickel oxide and mixed oxides, together with the cobalt recovered in ores exported from the mines, and including cobalt in speiss residues exported, amounted in 1927 to 880,590 lb. valued at $1,764,534, as against 1,116,492 lb. valued at $2,328,517 in 1925. Production in 1928 is estimated at 954,860 lb.

Subsection 7.—Zinc.

The zinc-mining industry of Canada has recently made rapid strides, largely on account of the application of the electrolytic method to treating the lead-zinc ores of British Columbia. The metallic recoveries from Canadian ores were 165,495,525 lb. in 1927, as compared with 5,600,000 lb. in 1913, and constituted a record. From an insignificant position in 1913, the country advanced to the sixth rank among the world's producers in 1927, with an output of about 5·6 p.c. of the world total. Production in 1928 is estimated at 186,611,850 lb.

British Columbia.—The principal zinc-mining regions are situated in the Kootenay district of British Columbia, where there are large deposits of silver-lead-zinc ore. The chief producing mine is the Sullivan near Kimberley, where the ore worked is a replacement deposit of considerable size. Other active mines are located in the Ainsworth and Slocan divisions of the West Kootenay district.

Before the war the industry was greatly retarded by unsatisfactory marketing conditions. The majority of the mines were essentially producers of silver and lead, and zinc-blende occurred as an accessory ore. Until local smelting proved successful, practically all the British Columbia ores were treated at smelters in the United States, but the cost of freight to these, although covered by a combined "freight and treatment rate", was necessarily an important charge against the ore. The high tariff on zinc ores exported to the United States was also a consideration. The smelter at Trail, originally intended, on its erection in 1895, for the treatment of gold and silver-bearing copper ores, was made ready for the treatment of silver-lead ores at a later date. No zinc is recovered in lead blast-furnace smelting, and its presence is detrimental to operation.

The urgent demand for zinc during the Great War was largely responsible for energetic and aggressive action on the part of the Consolidated Mining and Smelting Co., owners of the Trail plant, in producing this metal; with this object in view, the erection of an electrolytic zinc refinery was commenced in 1915, rushed to completion and put into operation early in 1916. The company had then to turn its

attention to solving the problem of recovering the values in the complex lead-zinc ores of the famous Sullivan mine. This was largely a problem of concentration in order to separate the finely divided lead and zinc ores. From the opening of the zinc refinery in 1916 regular shipments of zinc ore were made from the Sullivan and other mines, but it was not until four years later that the problem of concentration was satisfactorily solved by the application of oil flotation methods. Since that time the production of lead, zinc and silver has rapidly increased. Recent enlargements to the plant at Trail have enabled further increases in production to be made.

17.—Production of Zinc in Canada, calendar years 1911-1928.

Years.	Quantity.[1]	Value.	Average price per pound.	Years.	Quantity.[1]	Value.	Average price per pound.
	lb.	$	cts.		lb.	$	cts.
1911.....	1,877,479	108,105	5·758	1920.....	39,863,912	3,057,961	7·671
1912.....	4,283,760	297,421	6·943	1921.....	53,089,356	2,471,310	4·655
1913.....	5,640,195	318,558	5·648	1922.....	56,290,000	3,217,536	5·716
1914.....	7,246,063	377,737	5·213	1923.....	60,416,240	3,991,701	6·607
1915.....	9,771,651	1,292,789	13·230	1924.....	98,909,077	6,274,791	6·344
1916.....	23,364,760	2,991,623	12·804	1925.....	109,268,511	8,328,446	7·622
1917.....	29,668,764	2,640,817	8·901	1926.....	149,938,105	11,110,413	7·410
1918.....	35,083,175	2,862,436	8·159	1927.....	165,495,525	10,250,793	6·194
1919.....	32,194,707	2,362,448	7·338	1928[2].....	186,611,850	10,250,589	5·493

[1] Estimated smelter recoveries, including for years 1916 to 1928 the actual zinc recovered at Trail, B.C.
[2] Preliminary figures.

Subsection 8.—Iron.[1]

The fact that iron ore is widely distributed in Canada has long been known, and extensive deposits have been discovered from time to time. The development of the iron-mining industry, however, has been retarded by the abundant supply of the higher-grade ores of Wabana, Newfoundland, and of the Mesabi range of the state of Minnesota. The production of pig iron and of steel ingots and castings in 1928 was larger than in any other year except the war years.

Nova Scotia.—The Wabana section of Newfoundland, containing the largest single deposit of iron ore in the world, is operated by the British Empire Steel Corporation. The probable reserves in that area have been estimated at 3,635,000,000 tons, and the Wabana ore consists of an exceptionally high-grade hematite. Ore to the amount of 480,757 tons was shipped in 1927 to the blast-furnaces of the company at Sydney, where the proximity of the adjacent coalfield favours the economical production of pig iron and steel. Development work carried on also at Torbrook, in Annapolis Co., indicates that the deposits there are very extensive; the ore is red hematite, containing a good percentage of iron rather high in phosphorus. An important iron ore field is the Arisaig district in Antigonish Co.

New Brunswick.—The most important deposits so far discovered are those in the Austin Brook district of Bathurst Co., where mining experts state that great masses of iron ore have been located.

Quebec.—It is estimated that there are many millions of tons of iron magnetite sands, containing a high percentage of iron, along the north shore of the St. Lawrence at Moisie, Mingan, Natashkwan and other places in Saguenay Co. The sands contain a high percentage of titanium, rendering the briquetted iron sands unfavourable for blast-furnace treatment. There are a number of deposits of bog iron ore in the St. Lawrence valley, remarkably free from sulphur and phosphorus. The bog

[1] A sketch of the iron and steel industry of Canada was given on pp. 452-456 of the 1922-1923 Year Book.

iron ores were successfully used in charcoal blast-furnaces at Radnor Forges and Drummondville for many years. Iron ore deposits also exist along the Gatineau river in Hull township, within a few miles of the city of Ottawa. The Bristol mine, in Pontiac Co., has been proved to contain large deposits of magnetite, but the ore is high in sulphur and would require roasting.

Ontario.—The iron and steel industry in Ontario is chiefly dependent on imported ores, but several companies have demonstrated what can be done by the beneficiation of low-grade Canadian ores. The Moose Mountain iron range is situated about 35 miles north of Sudbury; over 100,000,000 tons of magnetite have been proved by the owners. The Atikokan district, west of Sabawa lake, contains approximately 15,000,000 tons of magnetite, while the Atikokan mine, to the east of the lake, has shown 10,000,000 tons. The deposits of non-Bessemer ore in the Michipicoten district are extensive, and millions of tons of red hematite were taken from the Helen mine. The Magpie mine produced siderite, which was roasted before being shipped to the blast-furnaces at Sault Ste. Marie owned by the Algoma Steel Co. However, no discoveries have been made in Ontario of deposits of iron ore which does not require special treatment before being charged to the blast furnaces, rendering it more expensive than the high-grade ore readily available from the Mesabi range in the state of Minnesota.

British Columbia.—Owing to the lack of a local iron-smelting industry, the production of iron ore in British Columbia has not reached important dimensions. On the northeast coast of Texada island there are extensive deposits estimated to contain 5,000,000 tons of magnetite. The Glen iron mine on the south side of Kamloops lake, estimated to contain reserves of 8,000,000 tons, has been worked intermittently for several years, the ore being shipped to Tacoma and to the Revelstoke Smelting Works.

18.—Iron Ore Shipments and Production of Pig Iron and of Steel Ingots and Castings, calendar years 1909-1928.

Years.	Ore shipments from Canadian mines.	Production of Pig Iron.						Production of Steel Ingots and Castings.
		Nova Scotia.		Ontario.		Total.[1]		
	Short tons.	Short tons.	$	Short tons.	$	Short tons.	$	Short tons.
1909.....	268,043	354,380	3,453,800	407,012	6,002,441	757,162	9,581,864	754,719
1910.....	259,418	350,287	4,203,444	447,273	6,956,923	800,797	11,245,622	822,284
1911.....	210,344	390,242	4,682,904	526,635	7,606,939	917,535	12,307,125	882,396
1912.....	215,883	424,994	6,374,910	589,593	8,176,089	1,014,587	14,550,999	957,681
1913.....	307,634	480,068	7,201,020	648,899	9,338,992	1,128,967	16,540,012	1,168,993
1914.....	244,854	227,052	2,951,676	556,112	7,051,180	783,164	10,002,856	828,641
1915.....	398,112	420,275	5,463,575	493,500	5,910,624	913,775	11,374,199	1,020,896
1916.....	275,176	470,055	7,050,825	699,202	9,700,073	1,169,257	16,750,898	1,428,249
1917.....	215,302	472,147	10,387,234	684,642	13,902,867	1,170,480	25,025,960	1,745,734
1918.....	211,608	415,870	10,451,400	747,650	21,324,857	1,195,551	33,495,171	1,873,708
1919.....	197,170	285,087	7,141,641	624,993	17,104,151	917,781	24,577,589	1,030,342
1920.....	129,072	332,493	7,687,614	749,068	22,252,062	1,090,396	30,319,024	1,232,697
1921.....	59,509	169,504	4,407,104	495,489	12,882,714	665,676	17,307,576	747,582
1922.....	17,971	135,261	3,139,994	293,662	6,493,513	428,923	9,633,507	544,020
1923.....	30,752	310,972	5,360,099	674,428	15,995,496	985,400	21,355,595	990,942
1924.....	1,480	177,078	3,842,593	415,971	9,525,736	593,049	13,368,329	728,773
1925.....	3,978	226,010	4,402,674	413,247	8,040,015	639,257	12,442,689	842,803
1926.....	200	280,266	6,165,852	567,929	10,495,122	848,195	16,660,974	869,413
1927.....	2,029	279,495	–	515,366	–	794,861	–	1,016,555
1928[2] ...	2,244	339,087	–	822,952	–	1,162,039	–	1,389,040

[1] Including a small production from Quebec in certain years. [2] Preliminary figures.

Section 5.—Production of Non-Metallic Minerals.

Subsection 1.—Fuels.

Coal.

The fuel situation of Canada is somewhat anomalous, as in spite of the enormous resources of coal in the country, about 50 p.c. of the consumption is imported from the United States. The Canadian coal areas are situated in the eastern and western provinces, while Ontario and Quebec are more easily and economically supplied with coal from the nearer coal fields of Pennsylvania and Ohio.* The anomaly of the situation is accentuated if we consider that Canada's present coal consumption is about 30,000,000 tons annually, as against reserves of 1,234,289,000,000 metric tons, sufficient for an unthinkably long period at the present rate of consumption.

Coal Resources.—A summary of the known coal resources of Canada was given on pages 391 to 394 of the 1922-23 Year Book; the accompanying table is reproduced as Table 19.

19.—Coal Resources of Canada, by Provinces and Classes of Coal.[1]

(In metric tons of 2,204 pounds.)

Provinces or Districts.	Including seams of 1 foot or over to a depth of 4,000 feet.					Including seams of 2 feet and over, at depths between 4,000 and 6,000 feet.	
	Actual Reserve.			Probable Reserve.		Probable Reserve.	
	Calculation based on actual thickness and extent.			Approximate estimate.		Approximate estimate.	
	Area, sq. miles.	Class of Coal.[3]	Thousands of tons.	Area, sq. miles.	Thousands of tons.	Area, sq. miles.	Thousands of tons.
Nova Scotia	174	B	2,188,151	204	4,911,817	73	2,639,000
New Brunswick	–	B	–	121	151,000	–	–
Ontario	–	L	–	10	25,000	–	–
Manitoba	–	L	–	48	160,000	–	–
Saskatchewan	306	L	2,412,000	13,100	57,400,000	–	–
Alberta	25,300	L	382,500,000	56,375	491,271,000	203	12,700,000
		B	3,223,800		182,183,600		
		A & B	669,000		100,000		
British Columbia	439	A & B	23,771,242	6,196	44,907,700	11	2,160,000
		L	60,000		5,136,000		
Yukon		A & B	–	2,840	250,000	–	–
		L	–		4,690,000		
Northwest Territories	–	L	–	300	4,800,000	–	–
Arctic Islands	–	B	–	6,000	6,000,000	–	–
Total	**26,219**	–	**414,804,193**[2]	**85,194**	**801,986,117**	**287**	**17,499,000**

[1]See "Coal, Coke and By-Products", published by the Imperial Mineral Resources Bureau.
[2]The coal of all classes mined in Alberta to 1911, amounting to 20,000,000 tons, has been deducted.
[3]A=Anthracite, B=Bituminous, L=Lignite.

In view of the abnormal conditions prevailing in Canada during the later years of the war period, and also of the falling-off of production in the United States, the Government, on July 12, 1917, appointed a Fuel Controller for Canada, charging him in the first place with the duty of stimulating shipments to Canada, and eventually extending his powers until they included the work of controlling prices and directing coal-mining operations in Canada. The Fuel Controller concluded his duties in March, 1919, but in the summer of 1922 it was again found necessary to provide machinery to handle the administrative problems directly related to the

*See map showing the sources of the coal supply of different parts of Canada, p. 386 of 1922-23 Year Book.

tiding-over of a threatened fuel shortage. The Dominion Fuel Board, with the Deputy Minister of the Department of Mines as chairman, was constituted on Nov. 25, 1922, to meet the need for a standing organization definitely responsible for the systematic study of the fuel position of the Dominion. The Board issued an interim report in 1923, and has since issued, in co-operation with the Department of Mines, various studies on particular fuels, notably a report, "Coke as a Household Fuel in Central Canada", published in 1925.

The coal production in 1927 amounted to 17,426,861 short tons, valued at $61,867,463, or an average of $3.55 per ton.[1] This represented an increase of 648,730 tons, or 5·8 p.c., as compared with the previous year. The production was obtained from mines in which were employed on an average 29,772 employees, at a salary and wage cost of $38,955,967. Nova Scotia produced 7,071,876 tons of coal in 1927, as compared with 6,747,477 tons in 1926. In the west Alberta produced 6,934,162 tons, including 3,353,494 tons of lignite, 2,984,513 tons of bituminous and 596,155 tons of sub-bituminous. Saskatchewan also produced 470,216 tons of lignite. In British Columbia the bituminous coal mined amounted to 2,746,243 tons in 1927. The quantity of coal mined annually in five provinces and the Yukon Territory from 1909 to 1928 is shown in Table **20.**

20.—Production of Coal in Canada, by Provinces, calendar years 1909-1928.

NOTE.—For annual production by provinces from 1874 to 1908, see 1911 Year Book, p. 419.

Years.	Nova Scotia.	New Brunswick.	Saskatchewan.	Alberta.	British Columbia.	Yukon Territory.	Total production.	Value.
	Short tons.	Short tons.	Short tons.	Short tons.	Short tons.	Short tons.	Short tons.	$
1909	5,652,089	49,029	192,125	1,994,741	2,606,127	7,364	10,501,475	24,781,236
1910	6,431,142	55,455	181,156	2,894,469	3,330,745	16,185	12,909,152	30,909,779
1911	7,004,420	55,781	206,779	1,511,036	2,542,532	2,840	11,323,388	26,467,646
1912	7,783,888	44,780	225,342	3,240,577	3,208,997	9,245	14,512,829	36,019,044
1913	7,980,073	70,311	212,897	4,014,755	2,714,420	19,722	15,012,178	37,334,940
1914	7,370,924	98,049	232,299	3,683,015	2,239,799	13,443	13,637,529	33,471,801
1915	7,463,370	127,391	240,107	3,360,818	2,065,613	9,724	13,267,023	32,111,182
1916	6,912,140	143,540	281,300	4,559,054	2,584,061	3,300	14,483,395	38,817,481
1917	6,327,091	189,095	355,445	4,736,368	2,433,888	4,872	14,046,759	43,199,831
1918	5,818,562	268,212	346,847	5,972,816	2,568,589	2,900	14,977,926	55,192,896
1919	5,720,373	179,108	380,169	4,964,535	2,435,933	1,100	13,681,218	54,413,349
1920	6,395,545	161,164	349,860	6,859,346	2,856,920	763	16,623,598	77,326,853
1921	5,734,928	188,192	335,632	5,909,217	2,890,291	233	15,057,262	72,451,656
1922	5,569,072	287,513	382,437	5,990,911	2,927,033	465	15,157,431	65,518,497
1923	6,597,838	276,617	438,100	6,854,397	2,823,306	313	16,990,571	72,058,986
1924	5,557,441	217,121	479,118	5,189,729	2,193,667	1,121	13,638,197	53,593,988
1925	3,842,978	208,012	471,965	5,869,031	2,742,252	730	13,134,968	49,261,951
1926	6,747,477	173,111	439,803	6,503,705	2,613,719	316	16,478,131	59,875,094
1927	7,071,876	203,950	470,216	6,934,162	2,746,243	414	17,426,861	61,867,463
1928[2]	6,741,630	207,738	464,428	7,335,489	2,804,594	414	17,554,293	62,681,136

[2] Preliminary figures.

The coal imported for consumption less re-exports in the calendar year 1927 amounted to 18,680,832 tons, as compared with 16,565,555 tons in the previous year. The exports of coal of domestic production in 1927 amounted to 1,113,330 tons, valued at $5,890,359, or an average of $5.29 per ton, as compared with 1,028,200 tons, valued at $5,739,436, in 1926. The imports of anthracite and bituminous coal for the fiscal years from 1901 to 1928 are given in Table **21,** and the exports from 1901 to 1928 in Table **22.**

[1] The preliminary estimate for 1928 is 17,554,293 tons valued at $62,681,136.

21.—Imports into Canada of Anthracite, Bituminous and Lignite Coal for Home Consumption, fiscal years 1901-1928.

NOTE.—Anthracite dust is included under anthracite coal. For previous years, see 1911 Year Book, p. 420.

Fiscal Years.	Anthracite, Free of Duty.		Bituminous Coal, Dutiable.		Lignite Coal, Free of Duty.	
	Tons.	$	Tons.	$	Tons.	$
1901	1,933,283	7,923,950	2,516,392	4,956,025	–	–
1902	1,652,451	7,021,939	3,047,392	5,712,058	–	–
1903	1,456,713	7,028,664	3,511,421	7,776,717	–	–
1904	2,275,018	10,461,223	4,053,900	9,108,208	–	–
1905	2,604,137	12,093,371	4,176,274	8,022,896	–	–
1906	2,200,863	10,304,303	4,945,550	8,360,349	–	–
1907[1]	2,014,846	9,487,574	3,807,604	7,491,045	–	–
1908	3,091,159	14,199,609	7,640,121	14,843,789	–	–
1909	3,059,663	14,034,020	6,763,352	13,151,449	–	–
1910	3,152,851	14,456,315	7,017,271	13,070,343	–	–
1911	3,465,774	15,750,340	7,745,571	14,597,268	–	–
1912	4,118,379	19,306,639	10,500,662	20,333,268	–	–
1913	4,237,310	20,399,279	11,060,910	20,447,587	–	–
1914	4,385,799	20,734,126	13,754,244	26,140,676	–	–
1915	4,383,497	20,927,539	9,124,499	16,135,920	–	–
1916	4,429,143	20,460,571	9,631,101	10,219,206	–	–
1917	4,572,440	22,806,156	12,931,075	19,270,270	–	–
1918	5,256,294	28,047,226	16,400,000	46,277,715	–	–
1919	4,752,788	26,191,798	16,569,025	44,411,207	–	–
1920	5,090,767	32,647,759	12,552,910	27,424,870	–	–
1921	4,839,559	39,058,148	15,407,996	72,239,952	–	–
1922	4,416,255	39,000,610	12,752,059	39,258,115	–	–
1923	3,162,113	28,159,041	11,166,937	44,025,436	–	–
1924	4,849,372	44,005,106	15,637,812	44,382,011	8,176	45,739
1925	4,133,675	36,838,730	11,510,053	25,750,817	27,907	120,926
1926	3,262,631	27,256,806	13,377,204	28,781,771	14,779	71,216
1927	4,376,668	35,097,013	13,079,418	26,980,950	9,907	40,672
1928	4,168,526	31,826,453	12,791,273	26,395,455	11,605	47,170

[1]Nine months.

22.—Exports of Coal, the Produce of Canada, fiscal years 1901-1928.

Fiscal Years.	Quantity.	Value.	Fiscal Years.	Quantity.	Value.
	Tons.	$		Tons.	$
1901	1,888,538	5,307,060	1915	1,512,487	4,466,258
1902	1,817,534	4,867,088	1916	1,971,124	6,032,764
1903	1,797,951	5,542,434	1917	1,899,185	6,817,035
1904	1,646,505	4,346,660	1918	1,902,010	8,684,038
1905	1,615,322	3,930,802	1919	1,826,639	10,169,722
1906	1,820,411	4,643,198	1920	2,120,138	13,183,666
1907 (9 months)	1,285,346	3,346,402	1921	2,277,202	16,501,478
1908	1,877,258	4,810,284	1922	1,953,053	13,182,440
1909	1,613,892	4,505,221	1923	2,089,438	12,956,615
1910	1,826,339	5,013,221	1924	1,217,835	7,842,259
1911	2,315,171	6,014,095	1925	719,502	4,388,766
1912	1,494,756	4,338,128	1926	753,842	4,083,713
1913	2,055,993	5,555,099	1927	1,264,901	7,112,763
1914	1,498,820	3,703,765	1928	914,644	4,745,856

Coal Consumption.—In 1927 Canada produced 17·43 million tons, exported 1·11 million tons, imported from the United States 18·31 million tons and from Great Britain 0·93 million tons, and from Germany, Japan and the Netherlands 0·01 million tons, and thus had available for consumption a total of 35·57 million tons, including 4·06 million tons of anthracite, 27·10 million tons of bituminous, 3·81 million tons of lignite and 0·60 million tons of sub-bituminous coal. Perusal of the table on the annual consumption of coal shows that Canada actually used 34·99 million tons of coal during the year, or an average of 3·676 tons per capita.

The sources of the coal consumed in Canada in the calendar years 1902-1927 are shown in Table 23; detailed figures of coal *made available for consumption* in 1927 are given in Table 24; the difference between the totals of the two tables in the latest year is accounted for by the fact that coal received is not necessarily "cleared for consumption".

23.—Annual Consumption of Canadian and Imported Coal in Canada, 1902-1927.

NOTE.—For the years 1886 to 1901, see 1921 Year Book, p. 354.

Calendar years.	Canadian.[1]		Imported Coal "entered for consumption".				Total.	Per capita.
			From U.S.A.	From Great Britain.	Total.[2]			
	Short tons.	p.c.	Short tons.	Short tons.	Short tons.	p.c.	Short tons.	Short tons.
1902	5,376,413	53·1	4,656,286	101,726	4,734,559	46·9	10,110,972	1·848
1903	6,005,735	47·3	6,520,931	184,593	6,678,450	52·7	12,684,185	2·212
1904	6,697,183	47·9	7,238,869	85,687	7,297,482	52·1	13,994,665	2·412
1905	7,032,661	49·4	7,233,738	68,500	7,215,446	50·6	14,249,107	2·341
1906	7,927,560	50·5	7,787,338	67,014	7,758,325	49·5	15,685,885	2·481
1907	8,617,352	45·0	10,588,697	54,325	10,549,503	55·0	19,166,855	2·947
1908	9,156,478	47·3	10,203,335	97,514	10,195,424	52·7	19,351,902	2·820
1909	8,913,376	47·9	9,805,253	67,671	9,711,826	52·1	18,625,202	2·682
1910	10,532,103	50·2	10,545,451	51,541	10,437,123	49·8	20,970,226	2·960
1911	9,822,749	40·5	14,510,129	48,963	14,424,949	59·5	24,247,698	3·365
1912	12,385,696	46·0	14,557,124	38,668	14,549,104	54·0	26,934,800	3·657
1913	13,450,158	42·6	18,145,769	37,825	18,132,387	57·4	31,582,545	4·196
1914	12,214,463	45·5	14,687,853	33,101	14,637,920	54·5	26,852,323	3·490
1915	11,500,480	48·1	12,450,796	15,098	12,406,212	51·9	23,906,692	3·041
1916	12,348,036	41·3	17,576,202	4,401	17,517,820	58·7	29,865,856	3·717
1917	12,313,603	37·2	20,848,009	9,451	20,810,132	62·8	33,123,735	4·049
1918	13,160,731	37·8	21,674,826	3,761	21,611,101	62·2	34,771,832	4·175
1919	11,611,168	40·3	17,292,913	344	17,236,269	59·7	28,847,437	3·402
1920	14,025,566	42·9	18,752,981	–	18,668,741	57·1	32,694,307	3·788
1921	12,715,734	41·1	18,300,081	1,591	18,258,387	58·9	30,974,121	3·524
1922	13,044,352	50·2	12,255,555	765,980	12,962,189	49·8	26,006,541	2·909
1923	15,070,962	41·8	20,417,239	572,570	20,967,971	58·2	36,038,933	3·968
1924	12,529,358	42·8	16,405,344	317,112	16,714,143	57·2	29,243,501	3·170
1925	12,125,290	42·6	15,744,957	604,117	16,331,971	57·4	28,457,261	3·039
1926	15,449,831	48·3	16,204,405	287,299	16,565,555	51·7	32,015,386	3·329
1927	16,313,531	46·6	17,769,963	907,220	18,680,832	53·4	34,994,363	3·676

[1] The sum of Canadian coal mine sales, colliery consumption, coal supplied to employees, and coal used in making coke, etc., less the tonnage of coal exported.

[2] Includes small tonnages from countries other than Great Britain and United States. Deductions have been made to take account of foreign coal re-exported from Canada.

24.—Coal Output, Exports, Imports and Coal made available for Consumption in Canada, 1927.

NOTE.—For details by Provinces, see the Bureau's report "Coal Statistics for Canada, 1927", p. 26.

(Short tons.)

Grades of Coal.	Canadian Coal.		Imported from U.S.A.	Imported from Great Britain.	Imported from other countries.[1]	Coal available for consumption.
	Output.	Exported.				
Anthracite	–	–	3,265,411	788,235	9,973	4,063,619
Bituminous	13,006,996	1,085,559	15,038,008	140,309	323	27,100,077
Sub-bituminous	596,155	–	–	–	–	596,155
Lignite	3,823,710	27,771	10,829	–	–	3,806,768
Total	**17,426,861**	**1,113,330**	**18,314,248**	**928,544**	**10,296**	**35,566,619**

[1] Includes 5,155 tons from the Netherlands, 4,818 from Germany, and 323 from Japan.

World's Production.—The total known production of the world in 1927 amounted to about 1,452,000,000 long tons, towards which Canada contributed 15,613,269 long tons or about 1·1 p.c. Table 25 shows the production of the British Empire and the chief foreign countries in units of 1,000 long tons during each of the years from 1913 to 1927.

25.—Coal Production in the Principal Countries of the World, 1913-1927.

(In thousands of long tons of 2,240 pounds.)

BRITISH EMPIRE.

Years.	United Kingdom	British India.	Canada.	Australia.	New Zealand.	Union of South Africa.
1913	287,431	16,208	13,404	12,418	1,888	9,583
1914	265,665	16,464	12,176	12,445	2,276	9,125
1915	253,208	17,104	11,846	11,415	2,209	8,977
1916	256,376	17,254	12,932	9,812	2,257	10,966
1917	248,500	18,213	12,542	10,232	2,068	11,444
1918	227,749	20,722	13,373	10,949	2,034	10,692
1919	229,780	22,628	12,131	10,525	1,848	9,162
1920	231,000	17,640	14,800	13,000	1,800	10,200
1921	163,251	19,303	13,444	12,878	1,809	10,645
1922	249,667	19,011	13,533	12,299	1,585	9,126
1923	276,001	19,658	15,170	12,634	1,970	11,075
1924	267,118	21,174	12,180	13,885	2,083	11,633
1925	243,176	20,904	11,723	14,503	2,115	12,127
1926	126,279	20,093	14,694	14,208	2,240	12,745
1927	251,232	22,082	15,613	14,978	2,367	12,382

FOREIGN COUNTRIES.

Years.	Germany.	Belgium.	France.	Czecho-slovakia.	Poland.	Nether-lands.	Japan.	United States.
1913	274,264	22,474	40,188	–	–	1,843	20,973	508,893
1914	241,288	16,445	26,141	–	–	1,898	21,935	458,505
1915	230,889	13,850	18,219	–	–	2,226	20,161	474,660
1916	246,606	16,592	20,968	–	–	2,613	22,534	526,873
1917	258,639	14,691	28,427	–	–	3,001	25,938	581,609
1918	256,979	13,668	25,899	–	–	4,804	27,579	605,546
1919	199,160	18,190	19,645	27,000	–	5,271	30,000	487,638
1920	239,285	22,029	34,114	30,587	6,553	5,251	28,775	587,737
1921	255,148	21,461	37,916	32,174	7,717	3,978	25,944	452,139
1922	262,878	20,868	43,118	28,385	24,300	4,525	27,420	425,849
1923	178,191	22,554	46,981	27,380	35,686	5,249	28,633	587,407
1924	239,494	22,986	58,065	35,066	31,793	5,975	29,801	510,369
1925	267,970	22,726	60,034	30,663	28,677	6,943	31,121	519,527
1926	280,656	24,913	65,072	32,491	35,139	8,677	28,037	591,720
1927	299,511	27,130	65,302	33,106	37,560	9,550	32,434	535,625

Natural Gas.—The production of natural gas has increased in value from $1,346,471 in 1910 to $8,043,010 in 1927. The producing gas wells are situated in the counties of Welland, Haldimand, Norfolk, Kent, Essex, Lambton, Elgin and Bruce, in Ontario, and near Moncton, New Brunswick. The principal producing fields in Alberta are the Medicine Hat, the Bow Island (about 40 miles west of Medicine Hat), the Viking (about 80 miles southeast of Edmonton), the Foremost (about 6 miles south and west of the town of Foremost), and the Turner Valley field (about 35 miles southwest of Calgary). Natural gas was piped into Wainwright during 1927 from the Maple Leaf well in the Fabyan field. The quantity of gas sold or used in 1927 was 21,376,791 M cubic feet. Of the total value, Ontario was credited with about 54 p.c. Estimated production for 1928 was 22,431,272 M cubic feet valued at $8,249,309.

Petroleum.—The production of crude petroleum in Canada during 1927 was 476,591 barrels, as compared with 364,444 barrels produced in 1926. Of this production 139,606 barrels came from Ontario, 18,244 from New Brunswick and 318,741 from Alberta. Alberta thus produced more than all the rest of Canada and accounted mainly for the increased production in 1927. The Turner Valley field is the principal source of production in Alberta, and contains the famous Royalite No. 4 well, which produced at the average rate of 620 barrels per day during 1927. The wells in this field give a wet gas from which a very high grade of crude naphtha is separated. The producing horizons in Western Canada were formerly considered to be the Dakota and Kootenay shale formations of the Upper and Lower Cretaceous periods, but the Royalite No. 4 well has proved that much better producing horizons exist in a lower formation, a brown porous dolomitic limestone, below the Kootenay formation. A small production of petroleum has also been obtained in the Wainwright field, about 120 miles east of Edmonton, where the oil is heavy and of a lower grade. The principal Ontario oil fields are situated in the southwestern peninsula between lake Huron and lake Erie. The oil districts are all situated within an area underlain by Devonian strata, usually in an anticlinal axis, and the petroleum is largely obtained from the horizons in the Onondaga at varying depths in the different localities.

Subsection 2.—Other Non-Metallic Minerals.

Asbestos.—Canada produces more asbestos than any other country. The value of the annual output of asbestos has increased from less than $25,000 in 1880 to $10,621,013 in 1927, so that, aside from coal, asbestos is now the most important non-metallic mineral product. In 1927, the world's production amounted to about 331,872 long tons; of this tonnage Canada produced 245,337 long tons or 73·9 p.c., Rhodesia 29,621 tons or 8·9 p.c., Russia 20,822 long tons or 6·3 p.c., South Africa 19,762 tons or 6·0 p.c., Cyprus 11,200 tons or 3·4 p.c., and the United States 2,666 tons.

Quebec.—The Eastern Townships have for many years been the most productive asbestos-mining area in the world. The most important deposits are those at Black lake, in Coleraine township; at Thetford and Robertsonville, in Thetford township; at East Broughton, in Broughton township, and at Danville, in Shipton township. The veins of asbestos traverse the serpentine in all directions, and as a rule the fibre lies at right angles to the walls of the veins. The veins vary in width from ¼ inch to ½ inch, and occasionally fibre has been obtained several inches in length. The fibre is of good quality and well adapted for spinning. In the East Broughton deposits, the serpentine occurs enclosed in a highly quartzose slate, probably of Precambrian age. In the Danville area, asbestos up to ½ inch in length occurs abundantly, and the whole of the serpentine is impregnated with fine, short fibre, giving a first-class milling material.

Open-cut methods of mining are adopted almost invariably throughout the Canadian asbestos fields. Nearly all the mining companies have installed machinery for the crushing, fibrizing, screening and grading of the mine product. In addition, 10 plants in Canada manufacture asbestos products, including the following commodities:—asbestos paper and mill board; asbestos roofing of all kinds; asbestos rigid shingles; asbestos building materials; asbestos cellular and sponge-felted pipe insulation; insulating sheets and blocks; asbestos brake linings and clutch facings (woven on special looms); and asbestos packings for steam, oil and hydraulic operations.

26.—Production of Asbestos in Canada, calendar years 1909-1928.

Years.	Total.		Years.	Total.	
	Tons	$		Tons	$
1909	87,300	2,301,775	1919	159,236	10,975,369
1910	102,215	2,573,663	1920	199,573	14,792,201
1911	127,414	2,943,108	1921	92,761	4,906,230
1912	136,301	3,137,279	1922	163,706	5,552,723
1913	161,086	3,849,925	1923	231,482	7,522,506
1914	117,573	2,909,806	1924	225,744	6,710,830
1915	136,842	3,574,985	1925	273,524	8,977,546
1916	154,149	5,228,869	1926	279,403	10,099,423
1917	153,781	7,230,383	1927	274,778	10,621,013
1918	158,259	8,970,797	1928[1]	273,033	11,238,360

[1] Preliminary figures.

Gypsum.—Many large deposits of gypsum occur throughout Canada, but the production is chiefly from Hants, Inverness and Victoria counties, Nova Scotia; Hillsborough, New Brunswick; Paris, Ontario; Gypsumville, Manitoba and Falkland and Mayook, British Columbia. The Hillsborough deposit of gypsum in New Brunswick is of very high grade. Nearly 50 p.c. of Canada's production is exported in crude forms from the Nova Scotia deposits, which are conveniently situated for ocean shipping and account for about 75 p.c. of the total Canadian production. Beds of gypsum are associated with the lower Carboniferous limestones in New Brunswick and Nova Scotia. The mineral occurs in Ontario in the salt-bearing Salina formation of Upper Silurian age.

Salt.—Practically the whole of the production comes from wells located in southwestern Ontario, but the Malagash deposits in Nova Scotia are claiming much attention and some shipments have been made from deposits near McMurray in Alberta. The deposits of Ontario occur in the Salina formation of Upper Silurian age, in which the beds of the mineral sometimes reach a thickness of 250 feet. The Canadian production was 268,672 tons in 1927, as compared with 262,547 tons in 1926, 233,746 tons in 1925 and 207,979 tons in 1924.

Section 6.—Production of Clay Products and Other Structural Materials.

Brick and Tile.—Although the brick and tile industry is established in every province of the Dominion, production is naturally greatest near the chief centres of population, that is, in Ontario and Quebec. Here the widespread clays of glacial and post-glacial age that occur over considerable areas of the St. Lawrence Lowlands, have furnished the materials for numerous brick and tile industries. Production in these industries fluctuates with construction activity and reached its highest point in the year 1912. The production of building brick of various types in 1927 was 398,441,000, as compared with 358,348,000 in 1926 and 894,372,000 in 1912.

Cement.—The cement industry in Canada began with the manufacture of hydraulic or natural rock cement. The first production was probably at Hull, Quebec, between 1830 and 1840. The manufacture of Portland cement began about 1889. Owing to its superior qualities of uniformity and strength, it soon superseded the older product. Portland cement consists of an accurately proportioned mixture of lime, silica and alumina. The lime is usually furnished by limestone or marl, and the silica and alumina by clay or shale. The cement industry has naturally become established where these materials are situated with good

facilities for a supply of fuel and for shipment of the product to the markets. The largest production is in Quebec and Ontario, although there are also active plants in Manitoba, Alberta and British Columbia. As may be seen from the table following (Table 27), the production of cement in 1928 established a record. The industry thus shows a healthy recovery from the unfavourable conditions from which it suffered during the war and post-war periods. Whereas in pre-war years Canada was an importer of Portland cement, she is now an exporter of this commodity.

27.—Production of Portland Cement, by Quantities and Values, calendar years 1910-1928, and Imports and Exports, fiscal years ended March 31, 1910-1928.

Years.	Production.[2]		Imports.		Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Brl.[1]	$	Cwt.	$	Cwt.	$
1910	4,753,975	6,412,215	490,809	158,487	–	97,380
1911	5,692,915	7,644,537	1,283,721	494,081	–	2,571
1912	7,132,732	9,106,556	2,592,025	936,425	–	3,742
1913	8,658,805	11,019,418	4,958,814	1,955,177	–	2,861
1914	7,172,480	9,187,924	709,104	322,564	–	2,393
1915	5,681,032	6,977,024	287,402	123,613	–	1,065
1916	5,369,560	6,547,728	94,136	37,048	–	5,139
1917	4,768,488	7,724,246	63,074	29,719	–	2,727
1918	3,591,481	7,076,503	26,243	17,417	–	16,909
1919	4,995,257	9,802,433	26,687	26,437	–	15,945
1920	6,651,980	14,798,070	45,458	47,156	–	660,884
1921	5,752,885	14,195,143	132,187	153,513	2,811,127	2,107,180
1922	6,943,972	15,438,481	24,952	34,304	810,448	578,474
1923	7,543,589	15,064,661	112,610	90,849	1,544,254	719,882
1924	7,498,624	13,398,411	61,466	75,758	1,653,685	790,249
1925	8,116,597	14,046,704	95,225	64,323	519,328	200,859
1926	8,707,021	13,013,283	95,051	71,826	3,491,875	1,498,353
1927	10,065,865	14,391,937	62,725	81,715	1,022,819	370,935
1928	10,954,184	16,583,703	73,652	90,613	900,202	310,730

[1] The barrel of cement=350 lb. or 3½ cwt. [2] "Production" as used here means quantity and value of sales.

CHAPTER XIII.—WATER POWERS.

The water area of Canada is officially estimated at 142,674 square miles—an area substantially larger than the whole land area of the British Isles, and certainly larger than the fresh water area of any other country in the world. As many parts of this well-watered country are situated at a considerable height above sea-level, it is inevitable that its rivers should generate abundant water power on their course to the sea. Water power, therefore, is among the chief natural resources of Canada, and its development has in recent years contributed materially to swell the volume of Canadian production.

This Water Power chapter of the Year Book is divided into three sections; the first describes our water powers, their development and use in industry; the second deals with the Canadian central electrical station industry, which is based almost wholly upon hydro-electric power; the third treats of the public ownership of hydro-electric power in Ontario, the chief manufacturing area, and describes the policies of the Hydro-Electric Commissions in other provinces.

Section 1.—The Water Powers of Canada.[1]

The progress of civilization in its material aspects may be measured by the extent to which the resources of nature are adapted to the uses of mankind. These resources yield, in the first instance, raw materials such as coal and iron, cotton and lumber, hides and wool, which enter into so many things that they are spoken of as basic commodities. Energy, until comparatively recently, was largely secured by the combustion of coal, and was therefore looked upon as a secondary product, whereas when produced from falling water, it is just as much a primary product as coal itself. Energy now enters so largely into the scheme of modern existence that it is recognized as a basic commodity, and statistics concern themselves with kilowatt hours of electrical energy produced as being just as important as returns covering the production of pig-iron, coal or cotton, and take note of undeveloped water power as being a source of raw material just as important as uncut forests or untapped oil fields. Modern nations are no longer sufficient unto themselves, and each country, besides collecting and compiling statistics of its own resources and activities, takes careful stock of the resources and facilities of other countries, amongst which the power resources and energy production are of prime importance.

A recent compilation by the "Electrical World" gives the kilowatt hours of energy generated in leading countries, and it is interesting to note that in electrical energy generated per capita Canada is second only to Norway. These figures, of course, include energy from all sources. In respect of hydro-electric energy, however, Canada has larger resources and a larger installation than any other country except the United States.

With this brief reference to the production of energy in other countries, we may proceed to a more particular consideration and analysis of the hydro-electric energy of the Dominion. Canada is richly endowed with water power resources and is in the forefront as regards their utilization. In fact, practically every large industrial centre throughout the Dominion is now served with hydro-electric energy and has within easy transmission distance ample reserves for the future. Over 95 p.c. of the prime motive power of the central electric stations of Canada is hydro

[1] By J. T. Johnston, Director, Dominion Water Power and Reclamation Service, Department of the Interior.

CANADA
(EXCLUSIVE OF NORTHERN REGIONS)
WATER POWERS
SCALE OF MILES
0 100 200 300 400 500
Prepared by Dominion Water Power and Reclamation Service, Department of the Interior
GROWTH OF WATER POWER DEVELOPMENT IN CANADA
1910
1912
1914
1916
1918
1920
1922
1924
1926
1928
0 1 2 3 4 5
MILLIONS OF HORSEPOWER
AVAILABLE WATER POWER BY PROVINCES
(AT ORDINARY MINIMUM FLOW)
YUKON
N.W.T.
B.C.
ALTA.
SASK.
MAN.
ONT.
QUE.
MAR. PROVS.
0 1 2 3 4 5 6 7 8
MILLIONS OF HORSEPOWER
LEGEND
Water Powers ---
Developed Sites
Undeveloped Sites
Capacity of Sites ---
1,000 h.p. or under
1,000 h.p. - 100,000 h.p.
100,000 h.p. - 1,000,000 h.p.
Above 1,000,000 h.p.
PACIFIC OCEAN
ALASKA
YUKON
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
ONTARIO
QUEBEC
HUDSON BAY
COAST OF LABRADOR
NEWFOUNDLAND
NEW BRUNSWICK
NOVA SCOTIA
PRINCE EDWARD ISLAND
DAWSON
Dawson
Yukon R.
Mackenzie R.
Norman
Great Slave Lake
Skagway
Liard R.
Ft. Smith
Peace River
L. Athabaska
McMurray
Peace River
Prince Rupert
Queen Charlotte Is.
Skeena R.
Fraser R.
Vancouver
Victoria
Edmonton
N. Saskatchewan R.
Calgary
Saskatchewan R.
Saskatoon
Regina
Churchill
Churchill R.
Nelson R.
Port Nelson
Lake Winnipeg
Winnipeg
Severn R.
Albany River
Belcher Is.
Gt. Whale R.
James Bay
C. Chidley
Ungava Bay
Hamilton R.
Strait of Belle Isle
Anticosti
Mistassini
St. Lawrence R.
Gulf of St. Lawrence
L. St. John
Quebec
Montreal
Ottawa R.
Ottawa
Cochrane
Nipigon
Kenora
Fort William
L. Superior
Sudbury
Sault Ste. Marie
L. Huron
L. Michigan
Toronto
Ontario
Windsor
L. Erie
Fredericton
Halifax
L. Breton I.
Sydney
140 130 120 110 100 90 80 70 60 50
50 40
170 110 100 90 80 70

power. Indeed, water power is a mainspring of industrial progress in the central provinces, which have no indigenous coal supplies. Table 1 shows the provincial distribution of available and developed power in Canada.

1.—Available and Developed Water Power in Canada, by Provinces, Jan. 1, 1929.

Provinces.	Available 24-hour power at 80 p.c. efficiency.		Turbine installation.
	At ordinary minimum flow.	At ordinary 6-months flow.	
	h.p.	h.p.	h.p.
British Columbia	1,931,000	5,103,500	554,792
Alberta	390,000	1,049,500	34,532
Saskatchewan	542,000	1,082,000	35
Manitoba	3,309,000	5,344,500	311,925
Ontario	5,330,000	6,940,000	1,903,705
Quebec	8,459,000	13,064,000	2,387,118
New Brunswick	87,000	120,800	67,131
Nova Scotia	20,800	128,300	74,356
Prince Edward Island	3,000	5,300	2,439
Yukon and Northwest Territories	125,200	275,300	13,199
Total	**20,197,000**	**33,113,200**	**5,349,232**

The figures in columns 1 and 2 in the above table represent 24-hour power, and are based upon rapids, falls and power sites of which the actual existent drop or the head of possible concentration is definitely known or at least well established. Innumerable rapids and falls of greater or less power capacity, which are not as yet recorded, are scattered on rivers and streams from coast to coast and will only become available for tabulation as more detailed survey work is undertaken and completed. This is particularly true of the less explored northern districts. Nor is any consideration given to the power concentrations which are feasible on rivers and streams of gradual gradient where economic heads may be created by the construction of power dams, excepting only at points where definite studies have been carried out and the results made matters of record.

The figures in column 3 represent the actual water wheels installed throughout the Dominion, but these figures should not be placed in direct comparison with the available power figures in columns 1 and 2 for the purpose of deducing therefrom the percentage of the available water power resources developed to date. The actual water wheel installation throughout the Dominion averages 30 p.c. greater than corresponding maximum available power figures calculated as in column 2. The figures quoted above, therefore, indicate that the "at present recorded water power resources" of the Dominion will permit of a turbine installation of about 43,000,000 h.p. In other words, the present turbine installation represents slightly less than $12\frac{1}{2}$ p.c. of the present recorded water power resources.

The above figures may be said to represent the minimum water power possibilities of the Dominion. To illustrate, detailed analyses of the water power resources of the provinces of New Brunswick and Nova Scotia have disclosed most advantageous reservoir facilities for regulating stream flow. It is estimated that the two provinces possess within their respective borders 200,000 and 300,000 commercial h.p. These figures provide for a diversity factor between installed power and consumers' demands.

Recent Increase in Turbine Installation.—Table 2 shows the yearly increase in turbine installation by provinces from 1910 to 1928 inclusive. During the four years immediately preceding the war nearly 1,000,000 h.p. was installed, during the following eight years approximately the same installation occurred, while in the last six years the gain was 2,340,887 h.p.

2.—Hydraulic Turbine Horse Power installed in Canada, by Provinces, as at Dec. 31, 1910-1928.

NOTE.—Turbine horse power in Saskatchewan is reported as 30 from 1910 to 1917 and 35 from 1918 to 1928; installation in the Yukon was 3,195 in 1910, 13,195 from 1911 to 1913 and 13,199 from 1914 to 1928. These figures are included in the total for Canada.

Years.	British Columbia	Alberta.	Manitoba	Ontario.	Quebec.	New Brunswick.	Nova Scotia.	Prince Edward Island.	Canada.
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
1910....	64,474	655	38,800	490,821	334,763	11,197	31,476	1,760	977,171
1911....	119,393	14,855	64,800	634,263	468,977	13,635	32,226	1,760	1,363,134
1912....	165,838	15,035	64,800	659,190	513,635	15,185	32,773	1,785	1,481,466
1913....	224,680	32,835	64,800	751,545	551,871	15,185	32,964	1,825	1,688,930
1914....	252,690	33,110	78,850	858,534	664,139	15,380	33,469	1,843	1,951,244
1915....	254,265	33,110	78,850	871,309	803,786	15,405	33,596	1,942	2,105,492
1916....	288,330	33,110	78,850	921,158	836,394	15,480	33,656	1,962	2,222,169
1917....	297,169	33,122	78,850	955,955	856,769	16,251	34,051	1,989	2,287,385
1918....	307,533	33,122	85,325	981,313	905,303	16,311	34,318	2,198	2,378,657
1919....	308,364	33,122	85,325	1,036,550	936,903	19,126	35,193	2,233	2,470,050
1920....	309,534	33,122	85,325	1,067,422	955,090	21,976	37,623	2,233	2,515,559
1921....	310,262	33,122	99,125	1,165,940	1,050,338	30,976	48,908	2,252	2,754,157
1922....	329,557	33,122	134,025	1,305,536	1,099,404	42,051	49,142	2,274	3,008,345
1923....	356,118	33,122	162,025	1,396,166	1,135,481	43,101	50,331	2,274	3,191,852
1924....	360,492	34,532	162,025	1,595,396	1,312,550	44,521	65,572	2,274	3,590,596
1925....	443,852	34,532	183,925	1,802,562	1,749,975	42,271	65,637	2,274	4,338,262
1926....	463,852	34,532	227,925	1,808,246	1,886,042	47,131	66,147	2,274	4,549,383
1927....	475,232	34,532	255,925	1,832,655	2,069,518	47,131	68,416	2,274	4,798,917
1928....	554,792	34,532	311,925	1,903,705	2,387,118	67,131	74,356	2,439	5,349,232

Distribution of Developed Water Power.—An analysis is made in Table 3 of the distribution of developed water power among central electric stations, pulp and paper-mills and other industries. The extent to which pulp and paper manufacturing is dependent on water power is clearly shown by the figures below, which indicate that 10.7 p.c. of the developed power is installed by pulp and paper companies, in comparison with 6.2 p.c. developed by all other industries (excluding central electric stations). The pulp and paper industry also purchases a large amount of power from the central electric stations and over 90 p.c. of its machinery is driven by water power. The bulk of the water power used in other industries is also developed by central electric stations, converted into electricity and delivered to the various industrial plants.

Between 1922 and 1929 installations of 2,340,887 h.p. were made, this figure including both new construction and the erection of new turbines and generators in existing water power stations. At the present time there are large new developments either in course of construction or actively projected, and there is every indication that the development of water power in Canada will make continued progress in the future.

3.—Developed Water Power in Canada: Distribution by Provinces and Industries, and per 1,000 Population, as at Jan. 1, 1929.

Provinces.	Turbine Installation in h.p.				Per 1,000 population.
	In Central Electric Stations.	In Pulp and Paper Mills.	In other Industries.	Total.	
1	2	3	4	5	6
	h.p.	h.p.	h.p.	h.p.	h.p.
British Columbia	412,960	81,000	60,832	554,792	952
Alberta	34,320	–	212	34,532	55
Saskatchewan	–	–	35	35	0·04
Manitoba	311,925	–	–	311,925	476
Ontario	1,568,423	240,880	94,402	1,903,705	590
Quebec	2,030,850	220,810	135,458	2,387,118	902
New Brunswick	43,910	14,278	8,943	67,131	162
Nova Scotia	42,929	16,008	15,419	74,356	136
Prince Edward Island	376	–	2,063	2,439	28
Yukon and Northwest Territories	–	–	13,199	13,199	1,039
Canada	**4,445,693**	**572,976**	**330,563**	**5,349,232**	**554**

Column 2 includes only hydro-electric stations which develop power for sale.

Column 3 includes only water power *actually developed* by pulp and paper companies. In addition to this total, pulp and paper companies purchase from the hydro power central electric stations totalled in column 2 power estimated at about 789,500 h.p., making a total of about 1,362,500 h.p. actually used in the manufacture of pulp and paper.

Column 4 includes only water power *actually developed* in connection with industries other than the central electric station and pulp and paper industries. These industries also purchase power from the central electric stations totalled in Column 2.

Column 5 totals all turbines and water wheels installed in Canada.

Column 6 averages the developed water power per 1,000 of the 1928 estimated population.

Section 2.—Central Electric Stations.

The rapid growth of the central electric station industry has been stimulated by the large demand for power from the manufacturing industries and from the domestic and commercial light customers and also by the many improvements in generating and transmitting equipment and in electric appliances and motors. In Table 4 will be found statistics of the number of central electric stations, capital invested, revenue from sale of power, total horse-power, kilowatt hours generated and number of subscribers for the eleven years ended 1927, together with the number of persons employed and the amount expended for salaries and wages. According to a table in the Commerce Year Book of the United States for 1928, the output of electric current in Canada for 1925 was the third largest in the world, ranking next to the United States and Germany. Canada's output in 1926 was larger than that of Germany in 1925. Preliminary figures from the larger central electric stations show a production of 15,899,000,000 kilowatt hours in 1928.

4.—Summary Statistics of Central Electric Stations, calendar years 1917-1927.

Years.	Number of stations.[1]	Capital invested.	Revenue from sale of power.[2]	Total horse power.[3]	Kilowatt hours generated.	Subscribers.	Persons employed.	Salaries and wages.
		$	$	h.p.	(000)	No.	No.	$
1917.....	666	356,004,168	–	1,844,571	–	–	8,847	7,777,715
1918.....	795	401,942,402	43,908,085	1,841,114	–	–	9,696	10,354,242
1919.....	805	416,512,010	47,933,490	1,907,135	5,497,204	–	9,656	11,487,132
1920.....	506	448,273,642	53,436,082	1,897,024	5,894,867	894,158	10,693	14,626,709
1921.....	510	484,669,451	58,271,622	1,977,857	5,614,132	973,212	10,714	15,234,678
1922.....	522	568,068,752	62,173,179	2,258,398	6,740,750	1,053,545	10,684	14,495,250
1923.....	532	581,780,611	67,496,893	2,423,845	8,099,192	1,112,547	11,094	14,784,038
1924.....	532	628,565,093	74,616,863	2,849,450	9,315,277	1,200,950	12,956	17,946,584
1925.....	563	726,721,087	79,341,584	3,569,527	10,110,459	1,279,731	13,263	18,755,907
1926.....	595	756,220,066	88,933,733	3,769,323	12,093,445	1,337,562	13,406	19,943,000
1927.....	629	806,875,285	104,033,297	4,173,349	14,549,099	1,381,966	14,708	22,946,315

[1] Excluding non-generating stations in 1920 and subsequent years. [2] Revised to exclude duplications.
[3] Not including auxiliary plant equipment which is included in installation shown in central electric stations under Manufactures on p. 421.

Equipment of Central Electric Stations.—The primary power equipment of all central electric stations aggregated 4,173,349 h.p. in 1927. This included water wheels and turbines, steam reciprocating engines and turbines and internal combustion engines. The hydraulic power machines greatly predominated over the other prime movers, providing 95.2 p.c. of the total capacity, with steam turbines, steam reciprocating engines and internal combustion engines making up the remaining 4·8 p.c. Not included in the above were steam engines and internal combustion engines with a capacity of 145,047 h.p., or 4.5 p.c. of the total power capacity, installed as auxiliary or standby equipment in hydro-electric stations.

Central electric stations that have no water power, but are operated by steam and internal combustion engines, are on the whole small stations. Of the 134 steam reciprocating engines installed in central electric stations in 1927, only 15 in number, or about 11 p.c., were over 500 h.p. The steam turbines averaged over 2,000 h.p., with 6 units averaging 7,000 h.p., but there were only 61 steam turbines in the industry and these were confined to 27 stations, whereas the 759 water wheels and turbines averaged 5,237 h.p.

The majority of the fuel-using stations are primarily for lighting purposes, using the cheapest fuel procurable, generally local coal. In the Prairie Provinces lignite coal is used for the steam engines, and gasolene, oil distillates and producer gas for the internal combustion engines.

Of the 399 internal combustion engines in central electric stations in 1927 244, or 61 p.c., were in Saskatchewan, 87 in Alberta and 24 in Manitoba.

During 1927 the fuel stations produced 202,525,000 kilowatt hours at a cost for fuel of $1,955,272, an average of 0.97 ct. per kilowatt hour. This production was, however, less than 2 p.c. of the total output, hydro-electric stations producing over 98 p.c. The auxiliary equipment in hydraulic stations consumed fuel valued at $342,416 and produced 20,693,879 k.w. hours.

5.—Equipment of Central Electric Stations, 1927.

NOTE.—K.V.A. means Kilo-volt-amperes.

Provinces.	Number of Power Plants.	Water Wheels and Turbines.			Steam Engines, Steam Turbines and Internal Combustion Engines.			Dynamos.		
		No.	Capacity.	Average Capacity.	No.	Capacity.	Average Capacity.	No.	Capacity.	Average Capacity.
			h.p.	h.p.		h.p.	h.p.		K.V.A.	K.V.A.
Prince Edward Island	10	8	299	37	7	3,053	436	14	2,922	209
Nova Scotia	44	39	32,540	834	41	24,360	594	81	46,146	570
New Brunswick	21	14	25,160	1,797	27	11,018	408	41	28,632	698
Quebec	109	264	1,758,755	6,624	11	4,020	365	267	1,466,865	5,494
Ontario	128	329	1,547,218	4,703	11	1,056	96	327	1,241,553	3,797
Manitoba	29	30	254,925	8,498	44	8,291	188	73	207,491	2,842
Saskatchewan	158	–	–	–	279	74,022	265	270	61,672	228
Alberta	81	16	33,520	2,095	143	68,679	480	151	82,685	537
British Columbia	47	57	322,695	5,660	30	3,778	126	88	241,221	2,741
Yukon	2	2	10,000	5,000	1	60	60	4	6,030	1,507
Total	**629**	**759**	**3,975,012**	**5,237**	**594**	**198,337**	**334**	**1,318**	**3,385,227**	**2,568**
Auxiliary Plant Equipment	–	–	–	–	91	145,047	1,594	80	121,863	1,523

Provincial Distribution of Electrical Energy.—The distribution by provinces of the electrical energy generated in central electric stations throughout Canada is shown in Table 6 for the calendar years 1924, 1925, 1926 and 1927. In the latter year nearly 85 p.c. of the total generated electrical energy was produced in the leading industrial provinces of Ontario and Quebec. From Table 7 it is seen

that the total of electrical energy generated for export in the fiscal year ended Mar. 31, 1928, was 1,674,856,007 kilowatt hours; in the calendar year 1927 it amounted to 1,682,675,803 kilowatt hours, or 11.6 p.c. of the total amount generated.

6.—Electrical Energy generated in the calendar years 1924-1927, by Provinces.

Provinces.	Kilowatt hours ("000" omitted).			
	1924.	1925.	1926.	1927.
Prince Edward Island	1,555	1,644	1,804	2,017
Nova Scotia	39,106	60,212	78,249	83,695
New Brunswick	39,967	41,723	47,541	53,095
Quebec	3,714,805	4,044,502	4,916,438	6,523,605
Ontario	4,289,029	4,518,844	5,321,756	5,792,820
Manitoba	433,517	515,915	616,431	875,897
Saskatchewan	59,200	66,486	74,251	85,603
Alberta	121,291	129,850	141,759	156,066
British Columbia	608,089	725,162	885,903	967,895
Yukon	8,718	6,121	9,413	8,406
Total	**9,315,277**	**10,110,459**	**12,093,445**	**14,549,099**

Electric Light and Power.—Electric light and power companies are subject to registration and inspection under the Electricity Inspection Act, 1907 (6-7 Edw. VII, c. 14), and the production of electrical energy for export is regulated by the Electricity and Fluid Exportation Act, 1907 (6-7 Edw. VII, c. 16). Both Acts were administered by the Department of Inland Revenue until Sept. 1, 1918, when, by Order in Council of June 3, 1918, their administration was transferred to the Department of Trade and Commerce. (See cc. 54 and 55, R.S.C., 1927.)

Electrical energy produced for export has increased from 538,331,425 kilowatt hours in the fiscal year ended 1911 to 1,674,856,007 kilowatt hours in 1928. Figures by companies for the last four fiscal years are given in Table 7.

7.—Electrical Energy generated or produced for Export under authority of the Electricity and Fluid Exportation Act during the fiscal years ended 1925-1928.

Companies.	1925.	1926.	1927.	1928.
	k.w. hours	k.w. hours.	k.w. hours.	k.w. hours.
Hydro-Electric Power Commission of Ontario	485,183,000	578,271,500	842,098,700	815,324,200
Canadian Niagara Power Company, Niagara Falls, Ont.	311,592,066	325,668,198	349,174,682	419,134,522
Ontario and Minnesota Power Co., Fort Frances, Ont.	11,921,200	16,069,300	11,180,300	15,544,100
Maine and New Brunswick Electric Power Co., Ltd., Aroostook Falls, N.B.	8,281,281	6,707,943	8,874,970	9,025,832
British Columbia Electric Ry. Co., Vancouver, B.C.	631,562	672,531	779,422	900,994
Western Power Co. of Canada, Vancouver, B.C.	41,912,888	54,636,692	5,474,900	752,449
Sherbrooke Ry. and Power Co., Sherbrooke, Que.	200	127,204	238,265	747,457
Cedars Rapids Mfg. and Power Co., Cedars Rapids, Que.	378,989,000	375,934,000	389,411,705	411,764,072
West Kootenay Power and Light Co., Ltd., Rossland, B.C.	560,100	618,800	597,800	559,000
La Compagnie d'Eclairage de Napierville, Napierville, Que.	–	102,970	–	–
International Electric Co., Ltd., Stewart, B.C.	–	105,912	44,716	97,799
Maritime Electric Co., Ltd., St. Stephen, N.B.	–	428,703	558,614	597,982
Fraser Companies, Ltd.	–	–	223,000	407,600
Total	**1,239,071,297**	**1,359,343,753**	**1,608,657,074**	**1,674,856,007**

Section 3.—Public Ownership of Hydro-Electric Power.

When, in the early years of the twentieth century, it became evident that the development of hydro-electric power would become a "key industry" in Canada, more especially in its coal-less central provinces of Ontario and Quebec, a strong movement arose in favour of conserving the water powers of the country for the public benefit instead of allowing them to pass into the hands of private corpor-

ations. This "public ownership" movement developed especial strength in Ontario and finally led to the establishment of the Hydro-Electric Power Commission, the operating statistics of which are given below. In more recent years, Manitoba, Nova Scotia and New Brunswick have established Hydro-Electric Commissions on the model of the Ontario system. In Quebec and British Columbia, on the other hand, the development of hydro-electric power has been left in the hands of private corporations.

Subsection 1.—The Hydro-Electric Power Commission of Ontario.

The hydro-electric power scheme in Ontario had its beginning in 1903, when seven municipalities (Toronto, London, Brantford, Stratford, Woodstock, Ingersoll and Guelph) united in an investigation of the transmission possibilities of Niagara power. The Ontario Power Commission, which was created to report on the question, favoured the construction of a generating plant at Niagara falls, and the Hydro-Electric Power Commission of Ontario was formed in 1906 to carry out its recommendations.

The capital required by the Commission for its transmission plant was provided by issues of bonds, guaranteed by the Government of Ontario, whose security was something more corporate than that of the associated municipalities. The contracts between the Commission and the municipalities called for repayment to the Government in 30 years.

When a municipality wishes to become part of the Hydro system, an engineer of the Commission reports on the cost of connection with the existing transmission lines. Then the question of joining the Hydro is voted upon under a civic by-law, which, if passed, is followed by another giving the necessary money. The local distribution system is financed by an issue of municipal debenture bonds to be retired in 30 years. Monthly bills are sent by the Commission to the municipalities, based upon an approximation to the yearly expense incurred in supplying power to the municipality, and at the year's end a thirteenth statement is sent, which brings the approximation to a true account. Like any efficient business concern, the Commission makes provision from the charges for power for sinking funds, repairs and replacements.

The Commission had been given authority to generate its own power, but chose rather to contract for power from the Ontario Power Co. at $9.40 for the first 25,000 h.p. and $9.00 for any additional power up to 100,000 h.p. In 1916, power was purchased from the Canadian Niagara Power Co. as well, and in the following year the Ontario Power Co. was acquired through purchase of practically all the stock. It was at this time that the Queenston-Chippawa development was begun. Of the total drop of 327 feet between lake Erie and lake Ontario, an effective head of 305 feet is obtained by the Queenston-Chippawa development. This effective head is about twice that utilized by the plants located at the falls. This means that the efficiency of utilization of the water diverted from Niagara falls has been doubled, and for each cubic foot per second, instead of 15 h.p., approximately 30 h.p. is now developed.

The Queenston-Chippawa development was begun in 1917 as a war measure, when the consumption of power in munition factories was greatest, at a time when the duration of the war could not be foreseen. High wage costs and high prices of material raised construction costs far above the original estimate of $10,500,000, besides which the ultimate capacity of the plant was enlarged. The cost of completing the nine units, totalling 522,790 h.p., is now estimated at approximately $76,302,482.

The first of these units began operation on Dec. 28, 1921; three others commenced operations in 1922 and the fifth in 1923. The sixth and seventh units were put into operation in 1924 and the eighth and ninth in 1925. The present normal operating capacity of this plant is 370,000 kilowatts or 522,790 h.p. It is operated independently, but is connected with the other two power plants of the Commission at Niagara falls (the Niagara Ontario Power plant and the Niagara Toronto Power plant), the combined operating capacity of the three plants being 637,000 kilowatts or 853,890 h.p. In addition the Commission receives the output of two units of the Canadian Niagara Power Co., totalling 20,000 h.p. The total system power factor at the time of the peak load approximates 85 p.c. In 1926 a contract was completed for the purchase of 260,000 h.p. from the Gatineau Power Co. to be transmitted over a 230-mile line from Paugan falls, Quebec, to Toronto, and in 1927 a further contract was made with the same company for a supply of 100,000 h.p. to the St. Lawrence, Central Ontario and Rideau systems.

Hydro-Electric Power Statistics.—The Canada Year Book of 1910 (p. xliii) described the turning on, Oct. 11, 1910, at Berlin (now Kitchener), Ontario, of electrical energy generated by Niagara falls, and the initial work carried out by the Ontario Hydro-Electric Power Commission for the supply of electrically generated power to 15 municipalities. The growth of the Hydro system in Ontario is shown in the amount of power used by its consumers. In 1910, the Commission supplied 750 h.p. to 10 municipalities; in 1915, 100,242 h.p. to 99 municipalities; in Dec. 1927 the amount taken was 673,997 h.p. The government electric utilities in Ontario have grown from a league of seven municipalities formed in 1903 until now the vested interests of the people in this class of property are represented by investments totalling over $286,000,000, the bonded indebtedness of which is guaranteed by the Province of Ontario.

In Table 8 will be found a consolidated operating report of the Hydro-Electric Power Commission for the years 1912 (the earliest year for which the statistics are available) to 1927. The table shows that during the 15-year period covered, the number of municipalities securing electricity from the Commission has increased from 28 to 252, the number of consumers from 34,967 to 445,067, the earnings from $1,617,674 to $24,583,022 and the operating expenses from $1,377,168 to $22,029,035. The total power generated or purchased by the Commission for distribution to the municipalities rose from 2,293,447,600 kilowatt hours in 1922 to 4,106,234,458 kilowatt hours in 1927—an increase of 79 p.c. in five years.

8.—Consolidated Operating Report of Electric Departments of Hydro Municipalities in Ontario, 1912-1927.

Years.	Number of municipalities.	Number of consumers.	Horse-power used.	Earnings.	Expenses.
			h.p.	$	$
1912	28	34,957	–	1,617,674	1,377,168
1913	45	65,697	–	2,617,440	2,041,183
1914	69	93,744	70,698	3,433,653	2,678,328
1915	99	120,028	100,242	4,070,295	3,371,414
1916	128	148,732	120,768	4,983,601	4,140,036
1917	143	170,916	157,048	6,070,065	5,077,491
1918	166	183,987	159,990	7,082,039	5,736,335
1919	181	216,086	185,355	7,827,055	6,531,482
1920	184	245,666	208,232	9,707,901	8,094,053
1921	205	268,743	242,349	10,981,942	9,317,781
1922	214	303,090	294,031	12,756,104	11,343,766
1923	223	348,028	350,486	17,219,044	15,208,508
1924	241	374,408	402,282	18,798,723	16,661,164
1925	244	402,056	481,844	20,974,611	18,887,750
1926	249	420,590	591,452	22,677,999	20,343,232
1927	252	445,067	673,997	24,583,022	22,029,035

The assets and liabilities of the Commission, as reported for the year ended Oct. 31, 1927, are each given as $211,598,426. Advances to the Commission by the Provincial Treasurer constitute almost 63 p.c. of the liabilities, being $132,548,226, while debentures issued total $16,388,873, debentures assumed by the Commission and guaranteed by the province $23,406,361, reserves $26,701,166, and liabilities in respect of radial railway undertakings, the only other large liability, $8,796,410. Of the assets, the sum of $157,273,133 represents investments in the Niagara system; $9,437,837 are assets in respect of railway undertakings, while about $22,000,000 is invested in the various systems operated other than the Niagara system.

In Table **9** will be found the financial statistics of the electrical installations of the municipalities served by the Hydro-Electric Commission for the four years 1924 to 1927. A very rapid growth will be noticed, total earnings, for example, increasing 30.8 p.c. between 1924 and 1927.

9.—Statement of Earnings and Operating Expenses of Electric Departments of Municipalities served by the Ontario Hydro-Electric Power Commission for the calendar years 1924-1927.

Items.	1924.	1925.	1926.	1927.
Number of municipalities	241	244	249	252
Earnings—	$	$	$	$
Domestic Light	5,993,231	6,723,539	7,660,191	8,470,650
Commercial Light	3,566,227	3,901,220	4,225,960	4,661,133
Power	6,222,866	6,658,974	6,868,006	7,405,015
Power, Municipal	1,352,966	1,923,093	1,922,512	1,913,503
Street Light	1,356,669	1,441,770	1,492,385	1,532,876
Rural	75,100	37,975	37,811	13,766
Miscellaneous	231,664	288,041	471,134	586,079
Total Earnings	**18,798,723**	**20,974,611**	**22,677,999**	**24,583,022**
Expenses—				
Power purchased	9,669,789	11,216,798	12,326,255	13,652,712
Sub-Station Operation	430,056	417,922	463,905	446,088
" " Maintenance	202,050	222,097	286,520	275,149
Dist. System, Operation and Maintenance	648,701	695,832	803,314	773,015
Line Transformers, Maintenance	82,937	80,709	80,317	97,758
Meters	141,231	161,576	196,521	221,077
Consumers' Premises—Expenses	237,316	277,129	296,846	302,353
Street Light System, Operation and Maintenance	269,973	278,423	299,582	321,643
Promotion of Business	202,061	225,221	243,763	223,947
Billing and Collecting	490,273	552,121	588,712	630,049
General Office, Salaries and Expenses	889,908	925,844	823,793	856,913
Undistributed expenses	494,079	533,427	468,582	533,476
Interest and Debenture payments	2,902,790	3,300,652	3,465,121	3,694,855
Total Expenses	**16,661,164**	**18,887,750**	**20,343,231**	**22,029,035**
Surplus	2,137,560	2,086,862	2,334,768	2,553,987
Depreciation charge	973,650	1,079,618	1,157,579	1,262,000
Surplus less Depreciation Charge	1,163,910	1,007,243	1,177,189	1,291,987

Statistics of the assets and liabilities of the electric departments of the municipalities served by the Hydro-Electric Commission are given in Table **10.** These show total assets of $91,935,884 in 1927, as compared with liabilities of $47,287,156. Of the difference, $21,466,011 is allotted as reserves, leaving a surplus of $23,182,716. The above assets are exclusive of the assets of the Hydro-Electric Commission shown above. The percentage of net debt to total assets has declined from 88 in 1913 to 54.2 in 1927.

10.—Consolidated Statement of Assets and Liabilities of Electric Departments of Municipalities served by the Ontario Hydro-Electric Power Commission for the calendar years 1924-1927.

Items.	1924.	1925.	1926.	1927.
	$	$	$	$
Assets—Plant—				
Lands and Buildings	4,561,649	5,768,856	6,111,163	6,078,395
Sub-Station Equipment	6,800,238	8,543,167	9,505,502	14,347,988
Distribution Systems, Overhead	14,182,190	16,837,536	18,654,241	15,716,606
" " Underground	2,873,446	3,388,837	3,689,570	3,278,382
Line Transformers	4,456,669	5,079,754	5,538,605	5,960,574
Meters	5,149,630	5,533,484	5,963,163	6,211,315
Street Light Equipment, Regular	1,134,492	1,256,916	1,309,608	1,399,314
" " Ornamental	728,298	893,186	1,103,660	1,184,036
Miscellaneous Construction Expenses	4,168,262	4,485,111	3,456,778	3,324,350
Steam and Hydraulic Plant	4,196,803	568,912	628,909	607,320
Old Plant	5,587,421	4,549,142	4,655,422	7,413,976
Total Plant	53,839,098	56,904,902	60,616,621	65,522,256
Other Assets—				
Bank and Cash Balances	1,748,912	1,700,145	2,136,291	3,014,832
Securities and Investments	1,329,623	1,095,663	1,400,316	1,695,238
Accounts Receivable	3,898,752	3,417,559	3,234,817	3,715,771
Inventories	1,745,628	1,711,504	1,397,668	1,412,729
Sinking Fund on Local Debentures	4,520,723	5,202,452	5,599,675	6,398,910
Equity in Hydro Systems	5,420,568	7,551,589	8,046,869	10,143,206
Other Assets	250,293	137,280	307,153	31,942
Total Plant and Other Assets	**72,753,596**	**77,721,094**	**82,739,409**	**91,935,884**
Liabilities—				
Debenture Balances	38,005,163	37,919,225	39,602,533	42,891,362
Accounts Payable	3,117,224	3,139,068	3,118,685	2,988,622
Bank Overdrafts	162,101	226,148	163,726	252,362
Other Liabilities	1,780,564	1,075,915	1,087,795	1,154,810
Total Liabilities	**43,065,052**	**42,360,356**	**43,972,739**	**47,287,156**
Reserves—				
For Depreciation	8,097,835	8,699,438	9,360,322	10,319,889
For equity in H. E. P. C. System	5,420,567	7,551,589	8,046,869	10,143,205
Other reserves	–	1,157,147	947,970	1,002,917
Total Reserves	**13,518,402**	**17,408,174**	**18,355,161**	**21,466,011**
Surplus—				
Debentures paid	3,530,610	4,440,138	5,493,880	6,648,767
Local Sinking Funds	4,520,723	5,202,452	5,599,675	6,398,910
Additional operating surplus	8,118,809	8,309,975	9,317,954	10,135,039
Total Surplus	**16,170,142**	**17,952,565**	**20,411,509**	**23,182,716**
Total Liabilities, Reserve and Surplus	**72,753,596**	**77,721,094**	**82,739,409**	**91,935,884**
Percentage of net debt to total assets	61·4	57·2	55·5	54·2

Subsection 2.—Hydro-Electric Power Commissions in other Provinces.

Quebec.—The Quebec Streams Commission, originally created by 1 Geo. V, c. 5, and given additional powers by 3 Geo. V, c. 6. (see R.S.Q., 1925, c. 46), is authorized to ascertain the water resources of the province, to make recommendations regarding their control, and to construct certain storage-dams and operate them so as to regulate the flow of streams.

The Commission has not undertaken the direct production of electric power, but has provided assistance to companies engaged in such work by a systematic collection of data on the flow of the principal rivers in the province and on the meteorological conditions prevailing, by investigation of numerous water-power sites and the determination of the longitudinal profile of a large number of rivers,

but mostly by the regulation of the flow of the principal power streams, thereby increasing very materially the amount of power available.

This regulation is obtained by the construction of storage-dams by which water is held in large reservoirs during flood periods and is used to increase the flow at low water periods.

The Commission has built storage reservoirs on the St. Maurice river, where the low-water flow has been increased from 6,000 second-feet to 17,000 second-feet, on the St. Francis, at lake Kenogami, on the Métis, the Ste. Anne de Beaupré and the North rivers.

In the most recent enterprise, completed in 1927 on the Gatineau river and resulting in the creation of a large storage-reservoir (lake Baskatong), the province will own the Mercier dam and other storage works comprising the undertaking, though the entire cost of these was borne by the benefiting companies, which must also pay their cost of operation and an annual rental. Up to date, the Commission has spent on the completed works about $9,000,000, on which the annual revenue now exceeds $750,000.

Nova Scotia.—The Nova Scotia Power Commission was created in 1919 with powers similar to those of the Ontario Commission. It is authorized to "generate, accumulate, transmit, distribute, supply and utilize electrical energy and power in any part of the Province of Nova Scotia, and do everything incidental thereto or deemed by the Commission necessary or expedient therefor". Its main operations, however, are undertaken with the approval of the Lieutenant-Governor in Council.

The Commission has already constructed several important hydro-electric developments and is now operating three systems known as St. Margaret's Bay, Mushamush and Sheet Harbour, which supply power to Halifax, Lunenburg, Riverport, Pictou, Stellarton and other parts of the province, and to a ground wood pulp-mill at Sheet Harbour. Under construction are developments on the Mersey river to supply a pulp and paper-mill near Liverpool, and on the Tusket river to supply Yarmouth. With the completion of these developments the capital expenditure will be about $10,000,000, with a total installed capacity of 56,000 h.p. and about 120 miles of main transmission lines.

New Brunswick.—The New Brunswick Electric Power Commission operates under authority of 10 Geo. V, c. 53 and amendments thereto, and has powers somewhat similar to those of the Hydro-Electric Power Commission of Ontario, except that the plant and equipment operated by the Commission are the property of the province and not of the municipality.

The Commission owns and operates an 11,000 h.p. hydro-electric plant at Musquash, twelve miles west of Saint John, and purchases auxiliary power from the New Brunswick Power Co. at Saint John and the Bathurst Company, Ltd., on the Nepisiguit river. It operates 100 miles of 66,000 volt line between Musquash and Moncton; 37 miles of 33,000 volt line from Nepisiguit to Newcastle, together with 200 miles of primary distribution lines.

The Commission sells power *en bloc* to Saint John, Moncton and Sussex, and retails directly in several towns and villages between Saint John and Shediac. This system serves, directly or indirectly, about 16,000 customers. The total plant investment of the Commission amounts to $3,778,000, and the annual revenue is about $445,000.

Manitoba.—The Manitoba Power Commission dates from the passage of the Electrical Power Transmission Act of 1919 (c. 30, also see c. 61 Consolidated Amendments, 1924), which authorizes the Commission to make provision for generating electrical energy, to enter into contracts for the purchase of power in bulk from generating agencies, and for its transmission and sale to municipalities and other corporations and individuals.

The Commission has built an extensive transmission system under the authority of this Act. The high tension lines extend from Winnipeg, where power is purchased from the Winnipeg municipal plant, to Portage la Prairie, and from Oakville south to Morden, with westerly extensions from a point near Roland to Glenboro and Pilot Mound. About 140 miles of low tension rural lines have also been constructed and it is expected that the entire southern part of Manitoba will be supplied by the Commission within a few years. The Commission has installed two small fuel-power plants to serve Virden and Minnedosa and has acquired a hydro-electric plant at Minnedosa.

British Columbia.—Water powers in British Columbia are administered under the Water Act (c. 271, R.S.B.C., 1924) and amending Acts, under the Minister of Lands. Licenses for the use of water on a rental basis are issued by the Comptroller of Water Rights. The province has not adopted the policy of public ownership of power developments and the Water Act does not contemplate any such contingency.

CHAPTER XIV.—MANUFACTURES.

Manufacture is defined as the operation of making wares from raw materials by the hands, by tools or by machinery, thus adding, in the phraseology of the economist, new utilities, and therefore additional value, to the already existing utilities and values of the raw material. Manufacture, in primitive societies and in the pioneer stages of new communities, is normally carried on within the household for the needs of the household, as was the case among the early settlers of Canada in the seventeenth and eighteenth centuries, when domestic manufactures were carried on in combination with the cultivation of the soil, mainly at the times of the year when agricultural operations were suspended. At a later period in the evolution of society, small manufactures were carried on in specialized workshops for the needs of the immediate locality or neighbourhood, as was generally the case in Eastern Canada in the first half of the nineteenth century. Later still, as a consequence of the introduction of machinery operated by steam or electric power—the so-called "industrial revolution"—and of the cheapening of transportation, manufacture has to an ever-increasing extent been concentrated in factories, often employing hundreds and even thousands of persons and producing for a national or even an international market. So far as Canada is concerned, this "industrial revolution" may be said to have commenced shortly before Confederation and to be still in progress. The growth of manufacturing production since 1870 is outlined in this article and the accompanying Table **1**, while the increasing importance of Canadian manufacturing for the international market may be illustrated by the fact that Canadian exports of manufactured produce increased from less than $3,000,000 per annum on the average of 1871-1875 to $614,000,000 in the post-war fiscal year ended Mar. 31, 1920. Exports of "fully or chiefly manufactured" products in the fiscal year ended Mar. 31, 1928, amounted in value to $458,796,551, and exports of "partly manufactured" products to $189,381,449.

Section 1.—The Evolution of Canadian Manufacturing Industries.

Early Manufactures.—The type of manufactures established in a community will in the beginning be largely determined, more especially where transportation charges are high, by the raw materials available in that community. For example, probably the first agricultural process to be carried on by Europeans in what is now the Dominion of Canada was the raising of a crop of grain at Port Royal, Nova Scotia, in 1605; the first corresponding manufacturing process was the grinding of the grain in the autumn of that year. Other early manufactures were also necessarily connected with the satisfaction of the primary needs of human beings for food, clothing and shelter, and with the other primary need for protection. At a census of occupations taken in 1681, we find enumerated a comparatively large number of tailors and shoemakers, masons and carpenters, gunsmiths and edge tool makers.

The earlier manufactures were necessarily of a rather crude and primitive type, concerned with the production of commodities which were too bulky to bear the heavy transportation charges of those days, when only one round trip per year could be made between France and Quebec, and vessels were constantly subject

to the storms of the North Atlantic and very frequently to the attacks of the English. Indeed, although the colonial policy of France under the old *régime* aimed at preventing the manufacture in Canada of any article which could be imported from the mother country, the uncertainties of transportation due to the colonial wars of the period—France and England were at war for 34 years out of the 74 years between 1689 and 1763—led to a necessary relaxation of restrictions. On the occasion of the English capture of a convoy in 1705, the colonists were driven to manufacture rough cloth out of whatever fibres they could obtain, such as the Canadian nettle and the inner bark of the basswood. Such events led to the introduction of sheep-raising and the manufacturing of homespun woollens. The number of sheep in the colony increased from 1,820 in 1706 to 12,175 in 1720, 28,022 in 1765, 84,696 in 1784 and 829,122 in Lower Canada alone in 1827. This increase in sheep approximately measures the growth of the manufacture of homespun woollens. In the same year, according to census records, there were in Lower Canada 13,243 spinning-wheels, while 1,153,673 French ells of home-made cloth, 808,240 French ells of home-made flannel and 1,058,696 French ells of home-made linen were produced. In 1842 Upper Canada produced 433,527 yards of home-made cloth, 166,881 yards of home-made linen and 727,286 yards of home-made flannel, and in 1848 624,971 yards of fulled cloth, 71,715 yards linen and 1,298,172 yards flannel. Nova Scotia in 1851 produced 119,698 yards fulled cloth, 790,104 yards non-fulled cloth and 219,352 yards flannel. Such production of homespun goods did not materially interfere with the market for the more elaborate factory-made goods imported from the United Kingdom, but supplied the daughters of pioneer families with useful work in their own homes.

In the days when ships were built of wood, Canada was advantageously situated with respect to their production. Pont-Gravé built two small vessels at Port Royal in 1606 and one at Tadoussac in 1608. Talon, in 1666, built on his private account a ship of 120 tons, and in 1672 a vessel of over 400 tons was on the stocks at Quebec. Ships were built for the French navy and for the West India trade. Under the British *régime* shipbuilding was conducted on a large scale in Quebec and New Brunswick, the industry reaching its climax of prosperity about 1865, when 105 Quebec-built ships with a tonnage of 59,333 were placed on the register. Thereafter iron and steel ships gradually supplanted the wooden vessels, but the forests of Canada have since provided the raw material for the pulp and paper and other important industries.

The manufacture of mineral products has been of comparatively recent date. Iron deposits in the St. Maurice region were worked as early as 1733, and furnaces set up there for smelting in 1737 were in fairly constant operation until 1883. The iron and steel used in manufacturing in Canada, as well as the coal which has supplied the manufacturing industries with power, has in the main been imported from the United States, chiefly because the principal manufacturing centres of this country in the St. Lawrence and Great Lakes region are fairly conveniently situated with regard to the coal and iron supplies of the United States and far away from the coal and iron supplies of the Maritime Provinces. In recent years the shortage of coal has been made up for by the increasing use of electric power, while the great bulk of the pig iron used in Canadian manufactures is now made in domestic blast-furnaces.

The Introduction of the Factory System.—In Canada, as in the United States and in Great Britain, it was inevitable that manufactures, carried on in the household or in small adjoining workshops, should be supplanted in the leading

industries of the country by manufactures carried on in factories. A factory has been defined as "an establishment where several workmen are collected for the purpose of obtaining greater and cheaper conveniences for labour than they could procure individually at their homes, for producing results by their combined efforts which they could not accomplish separately and for preventing the loss occasioned by carrying articles from place to place during several processes necessary to complete their manufacture". Such factories began to exist in Canada in the 60's and the 70's of the last century and have since that time become the dominant factor in Canadian manufacturing industry.

Encouragement of Manufactures by Protective Tariffs.[1]—In all new and developing countries, producing food products and raw materials in abundance, there comes, at a certain stage, a movement for working up these commodities within the country. Thus a movement to promote a rise of manufacturing industries in Canada took place in the 50's of the last century, and in 1858 the Canadian Legislature enacted a protective tariff against which English exporters of manufactured goods vehemently protested. Canada, however, claimed the right to raise her revenue in the manner which suited herself and Great Britain did not contest the point. From that day to this, there has been an element of protection in Canadian tariff legislation. For a considerable time, the protection afforded to Canadian manufacturers was described as "incidental protection", and after Confederation the tariff was reduced in deference to the low tariff sentiment prevailing in the Maritime Provinces, which were commercial rather than manufacturing communities. However, after a commercial depression which took place in the 1870's the people of Canada, at the general election of 1878, voted in favour of a higher tariff.

The policy of protection was definitely adopted in 1879, when the manufacturer was given an increase in the duty on his finished product, offset in some cases, it is true, by higher duties on his raw materials. Sugar and molasses products comprised some twelve tariff items, seven bearing a compound duty, the average *ad valorem* duty imposed being 26·25 p.c. On the lines of cotton goods likely to be manufactured in Canada, duties were raised from 17½ p.c. to rates, specific and *ad valorem*, equivalent on the importations of 1881 to 30 p.c. The duties on woollens, which were all in the 17½ p.c. schedule in 1878, were practically doubled. On some of the 36 iron and steel articles enumerated in the schedule, the duties were specific, on some compound, but on the whole there was an average duty of 16·17 p.c. Pig iron, previously free, was made to pay $2 a ton. The duty on iron billets, bars and rods was increased from 5 p.c. to 10 p.c. and 17½ p.c., while manufactured iron and steel products and machinery were given 25 p.c. to 35 p.c. protection. On coal, both bituminous and anthracite, a duty of 50 cents a ton was imposed. The average *ad valorem* rate of duty on the dutiable imports in 1880 was 26·1 p.c. as compared with 21·4 p.c. in 1878. The maximum percentage was reached in 1889, when the rate was 31·9 p.c. By 1896 there was a slight drop in the rate to 30·0 p.c., and the declining trend continued until 1918 and 1919, when a rate of 21·5 p.c. was recorded. In 1923 the rate was 24·9 p.c., in 1927, 24·1 p.c. and in 1928, 24·2 p.c. The average *ad valorem* rate of duty on all imports was 16·7 p.c. in 1923 and 15·5 p.c. in 1928. These rates are based on the gross sums collected; if the refunds and drawbacks were allowed for, the net rate of customs duty would be substantially lower.

Growth of Canadian Manufactures Prior to the War.—Until the later 90's, the growth of Canadian manufacturing industry was not particularly rapid.

[1]On this subject, see also the commencement of the chapter on External Trade, p. 466.

though the great fall in the prices of commodities during the period from 1873 to 1897 was largely responsible for the comparatively slow growth of the values of manufactured commodities from $221,600,000 in 1870 to $469,800,000 in 1890. Afterwards there was a change and the prices of commodities commenced to rise, while the industries generally shared in the advantages of the great growing period from 1900 to 1912. The gross product of establishments with five hands or over increased from $368,700,000 in 1890 to $1,166,000,000 in 1910 and to $1,381,500,000 in 1915. The fundamental advantages of the position of Canada, her abundant raw material, her inexhaustible water power, her growing home market in the expanding West, had contributed to this result.

In the present as in the past, Canadian manufacturing production has been chiefly dependent upon the use of Canadian raw material, though this is less true than formerly. Raw cotton, for example, is imported from the Southern States, hides from the Argentine, rubber from the Straits Settlements and Malay peninsula, sugar from Cuba and the British West Indies and wool from Australia and New Zealand, to supply the raw material for Canadian manufacturing industries.

The Influence of the War.—The influence of the war upon the manufactures of Canada was profound and far-reaching, tending to promote the diversification of products and the production at home of many commodities which had previously been imported. On account of the practical suspension of the importation of manufactured goods of many kinds from Europe, enterprising Canadian manufacturers were given opportunities of entering upon new lines of manufacture with practical control of the market. There was added to this the reflex effect of the great prosperity of agriculture, produced by the unprecedented prices of war-time, with the general result that industry worked at high pressure, not only to produce munitions and military supplies for the armies of the Allies, but also to make the manifold varieties of goods required for the stimulated civilian consumption. The world shortage of staple commodities, coupled with a strong domestic demand, gave Canadian industries in general a pronounced stimulus toward greater production, and in a great number of cases the capacity of manufacturing plants was increased; this increase created a demand for greater supplies of raw material. Incidentally, factory methods became more specialized and a high degree of administrative and mechanical efficiency was attained, and Canada, partly owing to the industrial inactivity of Europe, assumed a new position as one of the leading manufacturing countries of the world. The inflation of the war period also led to unprecedented figures of values produced.

The great boom in Canadian manufactures described above reached its height in the summer of 1920, statistics for that year showing greatest gross and net values of products. Statistics for 1921, as published in Table 1, show a great decline in values, which does not mean a corresponding decline in quantity of production, though a certain decline undoubtedly took place. There was also some decline in 1922, followed, however, by a general improvement during 1923. During the early months of 1924 the general outlook was good, but final statistics for that year were a little below those of 1923. The statistics for 1925 and 1926 show a notable growth in both gross and net values of products. The monthly reports of employers as to numbers employed would indicate still greater increases in 1927 and 1928.

Subsection 1.—Growth of Manufacturing Production in the Dominion and the Provinces since 1870.

The growth of large-scale production in manufactures during the past 50 years is evident from the statistics of Table 1, though this tendency has been less marked in Canada than in more highly developed industrial communities, with larger populations able to absorb a larger amount of standardized commodities. Even so, in the electoral district of South Toronto, the most important manufacturing centre of Ontario, the census of 1911 showed that one-half of the industrial establishments employed 90 p.c. of the workers. In the period immediately preceding the Great War many consolidations of independent manufacturing plants were effected, involving large economies in the purchase of materials and in selling expenses.

The historical Table 1 shows fairly well the advance of the "Industrial Revolution" (which might better be called "evolution") in Canada. The average capital per manufacturing establishment, the average number of employees per establishment and the average value of product per establishment, if allowance be made for the inflation of values and generally disturbed conditions of the war period, have continued to increase. If the consolidation of industry lessens the chances of an employee becoming a master, it must also be remembered that the amounts paid to employees in salaries and wages have also increased, so that the position of the average employee has been greatly ameliorated, though the lack of statistics of Canadian retail prices before 1890 prevents any detailed comparison of the purchasing power of the average wages of the worker of 1870 and of the employee of the present.

The Censuses of Manufactures.—The comparability of the statistics of various censuses is seriously affected by the different methods employed in census-taking. In the censuses of 1870, 1880 and 1890, all manufacturing establishments were included, the instructions to enumerators running as follows:—"An industrial establishment is a place where one or several persons are employed, in manufacturing, altering, making up or changing from one shape into another materials for sale, use or consumption, quite irrespectively of the amount of capital employed or of the products turned out. All repairs, mending or custom work are understood to be industrial products and are to be entered accordingly, by value, in the returns of industrial establishments".

In the statistics of 1900, 1905 and 1910, however, only establishments employing five hands and upwards were included. The 1901 instructions were that no manufacturing establishment or factory was to be recognized for census purposes if it did not employ at least five persons, either in the establishment itself or as piece-workers employed outside of it. This, however, did not apply to cheese and butter factories nor to certain mineral industries. The 1911 instructions stated that every factory in operation during the whole or part of 1910, and employing five or more persons, was to make a full report. All flour-mills, saw and shingle-mills, lime kilns, brick and tile works, butter and cheese factories, fish-curing plants, electric light and power plants whatsoever were nevertheless to be included. The statistics for 1915 included only establishments having an output of $2,500 or over, irrespective of the number of persons employed, except in the case of flour and grist-mills, butter and cheese factories, fish-preserving factories, sawmills, brick and tile yards, lime kilns and electric light plants, where all plants were included.

Under the Statistics Act of 1918, the policy of including mines, fisheries, manufactures and other industrial production in the decennial census was given

up and an annual "Census of Industry" substituted therefor. (See First Annual Report of the Dominion Statistician, 1919, pp. 30-36.)

In the Census of Industry for 1917, the limit of output was withdrawn and all establishments reporting to the Bureau were included, the effect being an increase in the number of establishments included from 21,306 in 1915 to 34,392[1] in 1917—an increase due mainly to change of method, rather than to a change in the actual number of industrial establishments existing in the Dominion. In the taking of an annual canvass of the wide scope of the Canadian industrial census, it is inevitable that changes in the number of reporting industries shall be made from time to time, interfering with the comparability of the results. The statistics in regard to a large number of the custom and repair industries were not collected for 1922, resulting in the dropping from the compilation of the entire group of "construction, hand trades and repairs". Again, several custom industries, such as the custom clothing industry in the textile group, were not compiled for 1922. For 1923, again, statistics of ship and bridge-building and of various clay products industries were collected and included for the first time. The result has been that, in order to restore the desired comparability between statistics of various years, a complete revision of all figures from 1917 to 1924 has been made. Considerable changes have resulted, but statistics of these years are now free of all inaccuracies due to changes in methods of collection or compilation. In 1925 statistics of the non-ferrous metal smelting industry were for the first time included in the figures for manufacturing. In 1926 certain duplications in the gross revenue of central electric stations were eliminated in a net figure and the difference shown as "cost of material", while the method of compiling the number of employees was changed in 1925 and 1926 in the following respect:—the yearly average of employees for each establishment was computed by dividing the sum of employees reported in each month by the number of months in operation instead of, as formerly, by 12 whether the industry was seasonal and only operated part of the year or not. These changes have created a slight incomparability with the statistics for the preceding years.

Censuses of Manufactures in Recent Years.—The census of manufactures has been taken annually since 1917 by the Dominion Bureau of Statistics, instead of quinquennially as theretofore. The last of the quinquennial censuses was taken in 1916 for the calendar year 1915, and annual censuses have been taken in the years from 1918 to 1928 for the years 1917 to 1927.

In any comparison between the results of the 1915 quinquennial census and the subsequent annual censuses, the rapid rise in prices must be borne in mind, and in comparisons between these annual censuses themselves the same factor must be taken into account. Thus, the old Canadian weighted index number of wholesale prices, compiled by the Dominion Bureau of Statistics, with 1913 as a base, was 243·5 in 1920, as compared with 209·2 in 1919, 199·0 in 1918, 178·5 in 1917 and 109·9 in 1915. In 1921, however, there was a great decline to 171·8—a decline of approximately 29·4 p.c. from the preceding year. Under such circumstances, it was inevitable that up to 1920 phenomenal advances in the money value of manufactured products should have been recorded, and that wages and salaries paid should also have greatly advanced since 1915. It was equally inevitable that in all these respects 1921 should show a great decline, due in much larger measure to the fall in values than to the decrease in the volume of production. In 1922 the index

[1]The subsequent decision to omit the group of "construction, hand trades and repairs" from the census of manufactures, together with other less important changes, accounts for the reduction of the number of manufacturing establishments in 1917, as appearing in Table **1**, to 22,838, a comparable figure with the 22,936 establishments recorded in 1927.

number showed a further drop to 152·0, but afterwards there was a rise from 153·0 in 1923 to 155·2 in 1924 and 160·3 in 1925. In 1926 and 1927, however, there was a drop to 156·2 and 151·6 respectively, the latter being the lowest figure since 1916. This would indicate that the comparatively small decline in the gross production of manufactured goods in 1922 was entirely due to declining values and that the increased production of 1923 resulted from larger quantities, the slight recession in 1924 being due to lessened volume. The 1925 total was swelled by increases in both values and volume, while gross production in 1926 and 1927 showed large increases in spite of a definite decline in price levels. (See Table 4.)

In Table 1 are presented statistics showing by provinces the development of Canadian manufacturing industries during the half-century from 1870 to 1927. Particularly notable is the increase in the manufactures of British Columbia from $2,900,000 in 1880 to $246,000,000 in 1927 and of Manitoba from $3,400,000 in 1880 to $142,000,000 in 1927. Saskatchewan also shows an increase from $2,400,000 in 1905 to $52,000,000 in 1927 and Alberta from $5,000,000 in 1905 to $85,000,000 in 1927. Thus the West is rapidly becoming an important contributor to Canadian manufacturing production.

1.—Historical Summary of Statistics of Manufactures, by Provinces, 1870-1927.

(*All establishments irrespective of the number of employees.*)

Provinces.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1870.	No.	$	No.	$	$	$	$
Canada	**41,259**	**77,964,020**	**187,942**	**40,851,009**	**124,907,846**	**96,709,927**	**221,617,773**
Nova Scotia	4,912	6,041,966	15,595	3,176,266	5,806,257	6,531,848	12,338,105
New Brunswick	3,479	5,976,176	18,352	3,869,360	9,431,760	7,935,927	17,367,687
Quebec	13,818	28,071,868	66,714	12,389,673	44,555,025	32,650,157	77,205,182
Ontario	19,050	37,874,010	87,281	21,415,710	65,114,804	49,591,995	114,706,799
1880.							
Canada	**49,722**	**165,302,623**	**254,935**	**59,429,062**	**179,918,593**	**129,757,475**	**309,676,068**
P.E. Island	1,617	2,085,776	5,767	807,208	1,829,210	1,570,998	3,400,208
Nova Scotia	5,493	10,183,060	20,390	4,098,445	10,022,030	8,553,296	18,575,326
New Brunswick	3,005	8,425,282	19,922	3,866,011	11,060,842	7,451,816	18,512,658
Quebec	15,754	59,216,992	85,673	18,333,162	62,563,967	42,098,291	104,662,258
Ontario	23,070	80,950,847	118,308	30,604,031	91,164,156	66,825,714	157,989,870
Manitoba	344	1,383,331	1,921	755,507	1,924,821	1,488,205	3,413,026
British Columbia	415	2,952,835	2,871	929,213	1,273,816	1,652,968	2,926,784
The Territories	24	104,500	83	35,425	79,751	116,187	195,938
1890.							
Canada	**75,964**	**353,213,000**	**369,595**	**100,415,350**	**250,759,252**	**219,088,594**	**469,847,886**
P.E. Island	2,679	2,911,963	7,910	1,101,620	2,092,067	2,253,843	4,345,910
Nova Scotia	10,495	19,730,736	34,944	7,233,111	16,062,479	14,905,913	30,968,392
New Brunswick	5,429	15,821,855	26,675	5,970,914	12,501,453	11,348,202	23,849,655
Quebec	23,034	116,974,615	116,753	30,461,315	80,712,496	66,747,087	147,459,533
Ontario	32,151	175,972,021	166,322	49,730,359	127,737,371	111,504,555	239,241,926
Manitoba	1,031	5,684,237	4,403	1,905,981	5,688,151	4,467,031	10,155,182
British Columbia	770	14,404,394	11,507	3,586,897	5,119,258	6,880,670	11,999,928
The Territories	375	1,713,179	1,081	425,153	846,017	981,293	1,827,310
		(*Establishments with five hands and over.*)					
1890.							
Canada[1]	**14,065**	–	**272,033**	**79,234,311**	–	–	**368,696,723**
1900.							
Canada	**14,650**	**446,916,487**	**339,173**	**113,249,359**	**266,527,858**	**214,525,517**	**481,053,375**
P.E. Island	334	2,081,766	3,804	445,998	1,319,058	1,007,650	2,326,708
Nova Scotia	1,188	34,586,416	23,284	5,613,571	13,161,077	10,431,436	23,592,513
New Brunswick	919	20,741,170	22,158	5,748,990	10,814,014	10,158,456	20,972,470
Quebec	4,845	142,403,407	110,329	36,550,655	86,679,779	71,608,215	158,287,994
Ontario	6,543	214,972,275	161,757	56,548,286	138,230,400	103,303,086	241,533,486
Manitoba	324	7,539,691	5,219	2,419,549	7,955,504	4,971,935	12,927,439
Alberta and Saskatchewan	105	1,689,870	1,168	465,763	1,121,342	843,645	1,964,987
British Columbia	392	22,901,892	11,454	5,456,538	7,246,684	12,201,094	19,447,778

[1] These statistics are not available by provinces.

1.—Historical Summary of Statistics of Manufactures, by Provinces, 1870-1927—con.

(Establishments with five hands or over.)

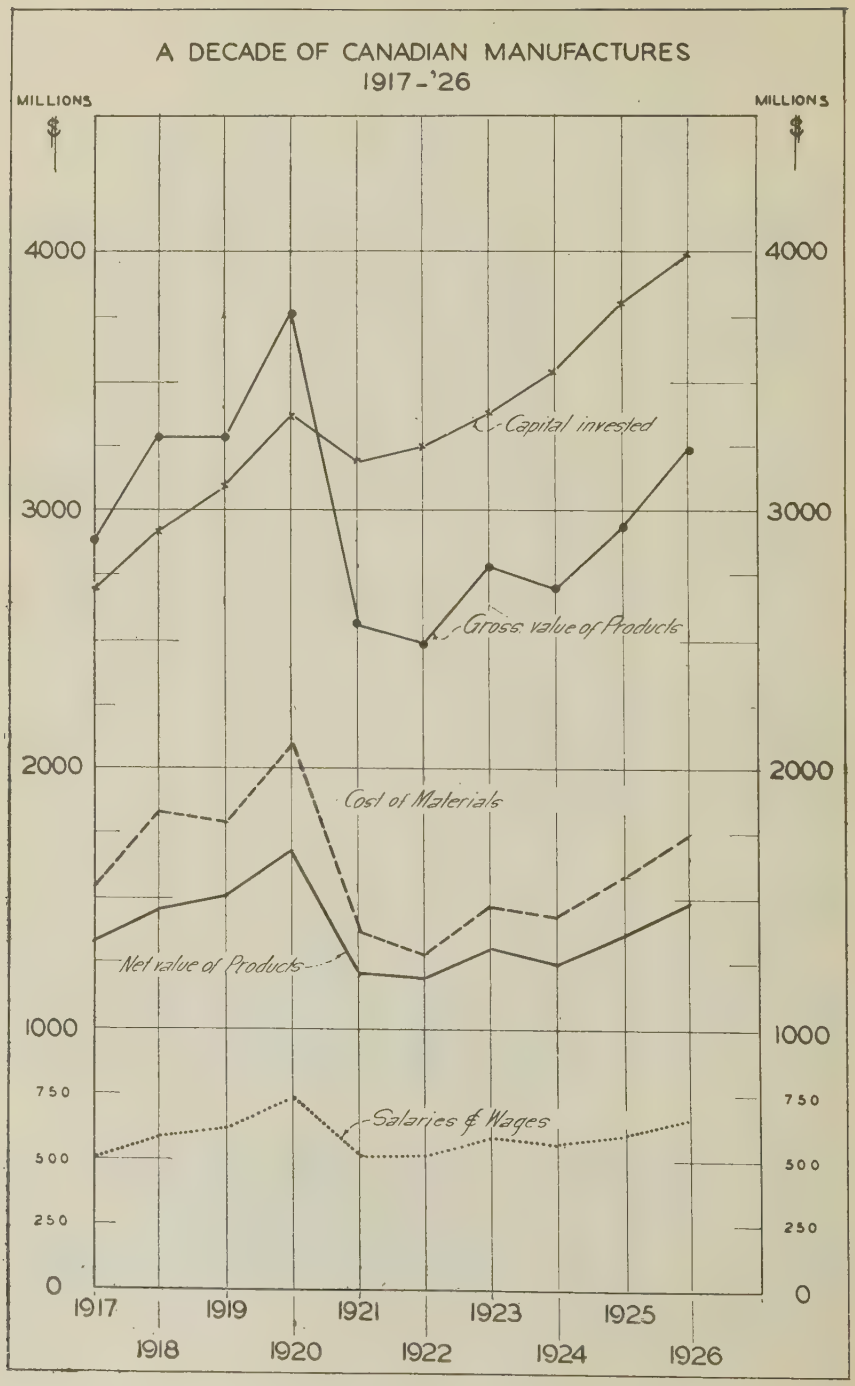
Provinces.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
	No.	$	No.	$	$	$	$
1905.							
Canada	**12,547**	**833,916,155**	**383,920**	**162,155,578**	–	–	**706,446,578**
P.E. Island	223	1,553,916	2,770	409,915	–	–	1,696,459
Nova Scotia	720	74,599,538	23,754	9,139,371	–	–	31,987,449
New Brunswick	531	26,461,664	19,170	6,497,161	–	–	21,833,564
Quebec	4,115	251,730,182	116,748	46,514,619	–	–	216,478,496
Ontario	6,163	390,875,465	184,526	80,729,889	–	–	361,372,741
Manitoba	280	27,070,665	10,113	5,800,707	–	–	27,857,396
Saskatchewan	55	3,820,975	1,376	681,381	–	–	2,443,801
Alberta	97	5,400,371	1,983	1,129,272	–	–	4,979,932
British Columbia	363	52,403,379	23,480	11,253,263	–	–	37,796,740
1910.							
Canada	**19,218**	**1,247,583,609**	**515,293**	**241,008,416**	**691,509,018**	**564,466,621**	**1,165,975,639**
P.E. Island	442	2,013,365	3,762	531,017	1,816,804	1,319,666	3,136,470
Nova Scotia	1,480	79,596,341	28,795	10,628,955	26,058,315	26,647,869	52,706,184
New Brunswick	1,158	36,125,012	24,755	8,314,212	18,516,096	16,906,206	35,422,302
Quebec	6,584	326,946,925	158,207	69,432,967	184,374,053	166,527,603	350,901,656
Ontario	8,001	595,394,608	238,817	117,645,784	297,580,125	282,230,100	579,810,225
Manitoba	439	47,941,540	17,325	10,912,866	30,499,829	23,173,780	53,673,609
Saskatchewan	173	7,019,951	3,250	1,936,284	2,747,266	3,584,866	6,332,132
Alberta	290	29,518,346	6,980	4,365,661	9,998,777	8,790,048	18,788,825
British Columbia	651	123,027,521	33,312	17,240,670	29,917,753	35,286,483	65,204,236
1915.							
Canada[1]	**15,593**	**1,958,705,230**	–	**283,311,505**	**791,943,433**	**589,693,792**	**1,381,547,225**
P.E. Island	261	1,841,690	–	543,954	1,499,066	1,087,757	2,586,823
Nova Scotia	781	125,754,562	–	17,175,818	36,194,004	33,151,815	69,345,819
New Brunswick	630	45,970,488	–	8,767,230	21,314,643	15,989,257	37,303,900
Quebec	5,743	530,312,464	–	80,324,171	213,754,115	167,449,884	381,203,999
Ontario	6,538	946,619,114	–	140,609,691	411,670,537	304,861,302	715,531,839
Manitoba	499	94,690,750	–	13,389,569	38,529,386	21,952,060	60,481,446
Saskatchewan	238	14,736,860	–	2,440,062	7,417,166	5,938,040	13,355,206
Alberta	282	41,198,897	–	4,791,281	20,699,967	8,716,254	29,416,221
British Columbia	621	157,580,405	–	15,269,729	41,864,549	30,457,423	72,321,972
1917.		*(All establishments irrespective of the number of employees.)*					
Canada	**22,838**	**2,696,154,039**	**621,694**	**509,382,027**	**1,541,087,416**	**1,332,180,767**	**2,873,268,183**
P.E. Island	418	2,225,482	1,588	693,149	3,088,718	1,816,986	4,905,704
Nova Scotia	1,387	128,052,239	25,814	19,177,657	102,456,085	58,751,437	161,207,522
New Brunswick	987	64,010,777	20,201	13,192,740	32,466,048	27,996,000	60,462,048
Quebec	7,193	793,589,489	191,969	143,291,802	385,486,685	396,539,787	782,026,472
Ontario	9,471	1,302,675,630	306,270	264,442,393	795,095,511	685,063,845	1,480,159,356
Manitoba	816	95,530,452	20,055	17,381,806	69,884,850	45,062,533	114,947,383
Saskatchewan	633	30,096,623	6,846	5,906,150	22,093,445	15,529,428	37,622,873
Alberta	720	60,552,814	10,191	9,323,221	42,725,021	26,105,121	68,830,142
British Columbia	1,202	215,681,355	38,689	35,864,308	87,764,650	74,978,844	162,743,494
Yukon	11	3,739,169	71	118,801	26,403	336,786	363,189
1918.							
Canada	**22,910**	**2,926,815,424**	**618,305**	**582,457,488**	**1,829,049,369**	**1,460,723,777**	**3,289,764,146**
P.E. Island	390	2,606,886	1,266	670,093	3,354,829	1,737,195	5,092,024
Nova Scotia	1,357	126,563,220	23,909	20,475,961	89,667,282	57,838,599	147,505,881
New Brunswick	909	72,783,311	18,443	13,338,342	33,222,984	32,231,038	65,454,022
Quebec	7,350	833,095,963	190,646	163,483,036	454,373,411	420,651,473	875,024,884
Ontario	9,701	1,460,384,037	307,283	300,963,759	974,277,838	760,245,667	1,734,523,505
Manitoba	786	96,382,644	20,289	19,740,123	88,545,136	45,096,245	133,641,381
Saskatchewan	577	35,435,976	6,348	6,705,910	28,394,364	15,900,874	44,295,238
Alberta	638	58,284,599	8,457	8,857,536	53,159,734	24,747,604	77,907,338
British Columbia	1,188	237,645,059	41,605	48,119,819	104,023,957	102,038,534	206,062,491
Yukon	14	3,633,729	59	102,909	20,834	236,548	257,382

[1]For 1915 the number of employees in establishments employing 5 hands and over has not been compiled.

1.—Historical Summary of Statistics of Manufactures, by Provinces, 1870-1927—con.

(All establishments irrespective of the number of employees.)

Provinces.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1919.	No.	$	No.	$	$	$	$
Canada	**23,249**	**3,095,025,799**	**611,008**	**618,463,139**	**1,780,629,840**	**1,509,870,745**	**3,290,500,585**
P.E. Island	402	2,462,324	1,295	789,382	4,005,474	2,225,391	6,230,865
Nova Scotia	1,392	126,072,240	23,437	19,992,903	71,100,630	57,179,576	128,280,206
New Brunswick	938	87,428,854	22,262	17,710,448	51,643,683	43,647,725	95,291,408
Quebec	7,551	906,421,665	186,202	172,373,664	496,716,322	438,879,496	935,595,818
Ontario	9,626	1,516,458,331	291,740	304,314,318	894,055,235	732,279,292	1,626,334,527
Manitoba	777	101,709,099	21,963	24,528,624	83,948,482	50,330,559	134,279,041
Saskatchewan	625	30,035,353	7,240	8,789,389	32,167,014	19,038,862	51,205,876
Alberta	664	60,233,769	10,802	12,837,805	52,885,069	34,039,386	86,924,455
British Columbia	1,263	260,652,116	46,034	57,067,542	94,091,505	132,095,198	226,186,703
Yukon	11	3,552,048	33	59,064	16,426	155,260	171,686
1920.							
Canada	**23,351**	**3,371,940,653**	**609,586**	**732,120,585**	**2,085,271,649**	**1,686,978,408**	**1,772,250,057**
P.E. Island	384	2,734,719	1,327	888,121	4,164,223	2,221,746	6,385,969
Nova Scotia	1,388	141,549,856	23,834	26,127,781	85,724,785	63,274,708	148,999,493
New Brunswick	928	105,671,688	19,241	19,505,048	60,812,641	46,910,631	107,723,272
Quebec	7,677	1,028,226,105	186,308	205,829,155	553,558,520	517,693,125	1,071,251,645
Ontario	9,473	1,668,079,488	300,794	369,846,193	1,071,843,374	822,570,783	1,894,414,157
Manitoba	773	112,896,616	24,481	33,357,872	92,729,271	65,492,637	158,221,908
Saskatchewan	639	31,727,162	7,182	10,249,392	34,894,105	24,655,529	59,549,634
Alberta	722	61,063,132	11,387	15,903,609	56,139,646	32,466,428	88,606,074
British Columbia and Yukon	1,367	219,991,887	35,132	50,413,414	125,405,084	111,692,821	237,097,905
1921.							
Canada	**22,235**	**3,190,026,358**	**456,076**	**518,785,137**	**1,366,893,685**	**1,209,143,344**	**2,576,037,029**
P.E. Island	339	2,308,216	893	522,488	2,516,415	1,356,940	3,873,355
Nova Scotia	1,208	105,254,364	14,521	14,400,509	41,099,835	36,384,726	77,484,561
New Brunswick	867	99,204,791	12,441	10,678,721	32,151,631	23,193,562	55,345,193
Quebec	7,173	981,177,681	146,763	151,474,436	390,119,293	361,964,897	752,084,190
Ontario	9,328	1,613,486,222	228,943	274,061,696	704,814,433	625,170,507	1,329,984,940
Manitoba	775	93,334,151	14,851	19,915,727	60,596,556	45,431,304	106,027,860
Saskatchewan	600	30,265,504	4,343	5,677,449	25,589,403	15,092,337	40,681,740
Alberta	709	55,685,908	8,227	10,072,714	33,912,502	26,152,276	60,064,778
British Columbia and Yukon	1,236	209,309,521	25,094	31,951,397	76,093,617	74,396,795	150,490,412
1922.							
Canada	**22,541**	**3,244,302,410**	**474,430**	**510,431,312**	**1,283,774,723**	**1,198,434,407**	**2,482,209,130**
P.E. Island	352	2,946,329	1,127	628,540	2,621,443	1,787,569	4,409,012
Nova Scotia	1,163	106,647,616	14,286	12,192,652	38,003,168	29,985,794	67,988,962
New Brunswick	897	82,230,895	14,351	12,201,014	38,059,376	26,821,281	64,880,657
Quebec	7,410	970,019,442	147,952	144,368,667	337,752,977	370,276,067	708,029,044
Ontario	9,388	1,696,738,996	243,297	275,559,006	678,746,675	617,752,828	1,296,499,503
Manitoba	781	88,779,517	14,188	18,274,012	54,630,668	41,326,416	95,957,084
Saskatchewan	614	31,101,612	4,196	5,618,174	22,450,051	16,357,481	38,807,532
Alberta	672	55,514,624	7,461	9,493,543	30,306,395	22,813,091	53,119,486
British Columbia and Yukon	1,264	210,323,379	27,572	32,095,704	81,203,970	71,313,880	152,517,850
1923.							
Canada	**22,642**	**3,380,322,950**	**525,267**	**571,470,028**	**1,470,140,139**	**1,311,025,375**	**2,781,165,514**
P.E. Island	368	2,821,440	2,745	626,693	2,766,092	1,696,729	4,462,821
Nova Scotia	1,193	106,947,436	17,179	13,226,378	50,103,942	31,880,906	81,984,848
New Brunswick	872	84,563,958	16,221	12,868,164	40,181,251	29,932,755	70,114,006
Quebec	7,142	1,009,898,982	163,622	164,356,082	396,714,471	414,388,925	811,103,396
Ontario	9,549	1,775,493,340	262,770	307,866,314	779,943,613	671,939,695	1,451,883,308
Manitoba	803	92,426,674	14,816	18,394,484	55,973,093	41,361,438	97,334,531
Saskatchewan	647	29,891,835	4,105	5,384,958	19,333,620	15,004,191	34,337,811
Alberta	723	61,659,305	8,767	10,633,705	31,612,377	22,725,424	54,327,801
British Columbia and Yukon	1,345	216,619,970	35,042	38,113,250	93,511,680	82,095,312	175,606,992
1924.							
Canada	**22,178**	**3,538,813,460**	**508,503**	**559,884,045**	**1,438,409,681**	**1,256,643,901**	**2,695,053,582**
P.E. Island	313	2,637,844	2,271	548,496	2,281,398	1,439,476	3,720,874
Nova Scotia	1,166	108,535,273	16,093	11,553,900	38,930,734	25,642,358	64,573,092
New Brunswick	846	88,357,818	15,805	12,812,718	40,503,685	26,952,341	67,456,026
Quebec	6,847	1,044,113,969	161,652	162,379,284	385,880,826	390,351,418	776,232,244
Ontario	9,453	1,836,269,551	252,596	296,508,913	754,469,838	643,403,906	1,397,873,744
Manitoba	768	110,011,602	14,778	18,706,742	59,036,763	43,215,250	102,252,013
Saskatchewan	645	30,269,547	4,151	5,544,416	22,179,147	14,134,784	36,313,931
Alberta	739	67,565,979	8,150	10,709,140	39,102,975	26,142,386	65,245,361
British Columbia and Yukon	1,401	251,051,877	33,007	41,120,436	96,024,315	85,361,982	181,386,297


A DECADE OF CANADIAN MANUFACTURES
1917-'26
MILLIONS
$
MILLIONS
$
4000
3000
2000
1000
750
500
250
0
Capital invested
Gross value of Products
Cost of Materials
Net value of Products
Salaries & Wages
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926

1.—Historical Summary of Statistics of Manufactures, by Provinces, 1870-1927[1]—con.

(All establishments irrespective of the number of employees.)

Provinces.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1925.	No.	$	No.	$	$	$	$
Canada	**22,331**	**3,808,309,981**	**544,225**	**596,015,171**	**1,587,665,408**	**1,360,879,907**	**2,948,545,315**
P.E. Island	318	2,576,677	2,317	572,130	2,805,665	1,484,484	4,290,149
Nova Scotia	1,184	117,326,491	16,568	12,082,693	37,854,196	27,179,505	65,033,701
New Brunswick	861	91,509,933	17,275	14,430,252	44,886,292	28,488,368	73,374,660
Quebec	6,995	1,136,033,133	168,245	169,686,055	412,460,003	408,103,754	820,563,757
Ontario	9,386	1,925,593,482	262,483	307,304,007	828,939,668	698,214,992	1,527,154,660
Manitoba	769	120,362,238	20,023	25,286,173	71,683,113	52,462,650	124,145,763
Saskatchewan	650	31,607,896	4,402	5,755,629	24,353,581	15,739,692	40,093,273
Alberta	734	69,805,848	9,364	11,785,604	45,855,910	29,257,607	75,113,517
British Columbia and Yukon	1,434	313,494,283	43,548	49,112,628	118,826,980	99,948,855	218,775,835
1926.							
Canada	**22,708**	**3,981,569,590**	**581,539**	**653,850,933**	**1,755,158,399**	**1,492,645,039**	**3,247,803,438**
P.E. Island	299	2,850,010	2,261	690,403	2,638,244	1,431,091	4,069,335
Nova Scotia	1,163	118,050,902	16,782	13,014,707	39,686,139	33,819,503	73,505,642
New Brunswick	910	95,661,154	17,674	14,609,734	44,535,406	29,586,833	74,122,239
Quebec	7,164	1,216,975,958	180,669	189,326,145	448,584,313	456,716,511	905,300,824
Ontario	9,457	1,985,165,921	280,353	335,164,239	924,598,851	753,334,653	1,677,933,504
Manitoba	797	127,445,924	21,201	26,973,850	75,588,993	57,129,459	132,718,452
Saskatchewan	674	33,943,060	4,904	6,397,545	29,142,700	17,965,397	47,108,097
Alberta	749	72,468,286	10,233	12,808,554	50,192,669	33,232,962	83,425,631
British Columbia and Yukon	1,495	329,008,375	47,462	54,865,756	140,191,084	109,428,630	249,619,714
1927.							
Canada	**22,936**	**4,337,631,558**	**618,933**	**693,932,228**	**1,789,574,604**	**1,635,923,936**	**3,425,498,540**
P.E. Island	291	3,081,504	2,232	687,849	2,855,438	1,638,190	4,493,628
Nova Scotia	1,190	128,155,040	17,864	13,610,944	42,059,320	32,398,977	74,458,297
New Brunswick	872	99,087,327	18,970	14,999,101	42,780,582	29,886,083	72,666,665
Quebec	7,206	1,376,654,019	196,094	203,724,997	474,361,396	516,221,599	990,582,995
Ontario	9,512	2,134,181,377	296,034	355,174,773	939,872,565	818,132,010	1,758,004,575
Manitoba	859	151,373,047	23,031	28,934,926	79,510,766	62,578,912	142,089,678
Saskatchewan	721	38,387,248	5,683	7,280,945	32,165,027	20,015,654	52,180,681
Alberta	776	81,664,730	11,285	13,511,359	50,611,021	34,376,296	84,987,317
British Columbia and Yukon	1,509	325,047,266	47,740	56,007,334	125,358,489	120,676,215	246,034,704

[1] Statistics of the construction and custom and repair industries have not been collected since 1921; the figures for these industries for 1917 to 1921 have consequently been deducted from the totals as previously published. The industries excluded comprise custom clothing, dyeing and laundry work, boot, jewelry, automobile and bicycle repairing, blacksmithing and custom and repair work by foundries.

Statistics of the non-ferrous metal smelting industry were included in manufactures for the first time in 1925. The introduction in 1926 of the use of the gross and net revenue of the Central Electric Station Industry as gross and net production, while including the difference with "cost of materials," impairs the comparability of 1926 figures for "cost of materials" and "net value of products" with those for earlier years.

Subsection 2.—A Decade of Manufacturing in the Industrial Groups.

The commodities required of the manufacturers of a country in time of war differ considerably from those needed in time of peace. Thus, while manufacturing as a whole reached its maximum value of gross production up to the present time in 1920, under the stimulus of inflated values, the "iron and its products" group reached its highest point of gross production in 1918, the last year of the war. The "chemicals and allied products" group was another group which reached its greatest development under war conditions, when the value of gross production was more than 2½ times as great as in 1927. Under the group of "non-ferrous metals", the production of the smelters was not included in these statistics until 1925, while in 1926 the treatment of central electric stations was changed in the manner explained in the footnote to Table 1 above on this page.

2.—Summary of Statistics of Manufactures, by Industrial Groups, 1917-1927.[1]

(All establishments irrespective of the number of employees.)

Industrial Groups.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1917.	No.	$	No.	$	$	$	$
Total	**22,838**	**2,696,154,030**	**621,694**	**509,382,027**	**1,541,087,416**	**1,332,180,767**	**2,873,268,183**
Vegetable products.	3,816	274,722,765	61,288	14,780,329	365,483,923	181,072,143	546,556,066
Animal products....	5,486	207,165,245	46,994	35,753,133	320,302,039	124,103,990	444,406,029
Textile products....	1,360	196,823,197	82,639	51,189,060	132,479,763	115,739,096	248,218,859
Wood and paper....	7,255	537,731,225	153,751	115,137,384	149,927,482	248,986,564	398,914,046
Iron and its products	1,404	634,642,989	142,416	140,334,255	357,688,333	334,616,810	692,305,143
Non-ferrous metals.	296	69,421,911	18,220	15,898,890	46,445,469	41,039,351	87,484,820
Non-metallic minerals	1,410	150,328,144	22,284	19,360,952	38,724,530	60,802,754	99,527,284
Chemicals and allied products...	539	175,836,690	56,153	51,505,484	99,068,092	131,381,995	230,450,087
Miscellaneous industries	606	93,477,696	29,102	27,644,825	30,967,785	49,901,216	80,869,001
Central electric stations	666	356,004,168	8,847	7,777,715	–	44,536,848	44,536,848
1918.							
Total	**22,910**	**2,926,815,424**	**618,305**	**582,457,488**	**1,829,040,369**	**1,460,723,777**	**3,289,764,146**
Vegetable products.	3,824	310,556,340	63,197	49,788,771	409,813,120	188,009,655	597,822,775
Animal products...	5,493	225,949,731	51,085	40,970,545	348,773,348	131,220,539	479,993,887
Textile products....	1,394	232,678,413	82,144	54,754,968	182,529,695	137,903,308	320,433,003
Wood and paper....	7,281	599,594,273	150,732	130,348,989	168,154,574	282,110,061	450,264,635
Iron and its products	1,397	631,390,223	127,146	148,361,634	393,204,670	330,388,308	723,592,978
Non-ferrous metals.	286	78,075,726	17,741	17,635,814	40,988,990	38,406,413	79,395,403
Non-metallic minerals	1,264	168,367,861	20,940	20,397,078	56,541,480	56,791,607	113,333,087
Chemicals and allied products...	534	162,912,627	56,391	66,741,341	178,227,423	157,923,196	336,150,619
Miscellaneous industries	642	115,347,828	35,956	43,004,106	50,807,069	84,521,557	135,328,626
Central electric stations	795	401,942,402	12,873	10,354,242	–	53,449,133	53,449,133
1919.							
Total	**23,249**	**3,095,025,799**	**611,008**	**618,463,139**	**1,780,629,840**	**1,509,870,745**	**3,290,500,585**
Vegetable products.	3,964	336,730,861	69,780	62,545,616	497,887,117	199,785,015	697,672,132
Animal products....	5,433	242,003,094	54,372	50,709,455	401,105,903	142,322,561	543,428,464
Textile products....	1,524	257,860,265	87,275	69,661,851	213,282,721	163,841,996	377,124,717
Wood and paper....	7,623	707,052,570	166,176	157,240,646	215,115,868	359,322,951	574,438,819
Iron and its products	1,523	611,291,790	129,157	162,103,816	249,399,965	348,540,736	597,940,701
Non-ferrous metals.	311	80,288,911	17,108	18,338,421	33,393,739	38,113,823	71,507,562
Non-metallic minerals	1,048	201,452,109	22,852	25,443,422	64,768,623	63,111,247	127,879,870
Chemicals and allied products...	406	106,110,959	14,719	15,255,350	45,399,060	49,168,100	94,567,160
Miscellaneous industries	612	135,723,230	39,808	45,677,430	60,276,844	88,177,858	148,454,702
Central electric stations	805	416,512,010	9,761	11,487,132	–	57,486,458	57,486,458
1920.							
Total	**23,351**	**3,371,940,653**	**609,586**	**732,129,585**	**2,085,271,649**	**1,686,978,408**	**3,772,250,057**
Vegetable products.	4,219	394,123,233	72,380	75,695,530	532,484,195	234,317,527	766,801,722
Animal products....	4,823	221,792,457	48,687	54,291,606	400,496,354	152,995,130	553,491,484
Textile products....	1,304	302,758,185	87,730	84,433,609	256,233,300	173,741,035	429,974,335
Wood and paper....	7,867	772,086,812	143,731	171,610,460	308,282,232	415,784,276	724,066,508
Iron and its products	1,690	642,904,322	146,204	205,414,599	349,642,666	365,473,097	715,115,763
Non-ferrous metals.	324	109,382,033	23,162	27,895,343	48,434,120	52,847,178	101,281,298
Non-metallic minerals	1,176	223,541,735	27,361	34,406,423	74,200,407	85,216,316	159,416,723
Chemicals and allied products...	464	122,123,730	17,653	22,193,421	62,644,608	65,183,212	127,827,820
Miscellaneous industries	665	134,954,504	31,985	41,552,885	52,853,767	75,715,577	128,569,344
Central electric stations	819	448,273,642	10,693	14,626,709	–	65,705,060	65,705,060

[1] See note to Table 1 on page 403.

2.—Summary of Statistics of Manufactures, by Industrial Groups, 1917-1927[1]—continued.

(All establishments irrespective of the number of employees.)

Industrial Groups.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1921.	No.	$	No.	$	$	$	$
Total	**22,235**	**3,190,025,358**	**456,076**	**518,785,137**	**1,366,893,685**	**1,209,143,344**	**2,576,037,029**
Vegetable products.	3,916	360,945,194	61,161	63,130,893	364,123,395	205,448,326	569,571,721
Animal products	5,051	200,697,527	45,726	48,124,667	267,878,165	111,534,101	379,412,266
Textile products	1,627	260,158,327	76,379	71,321,283	164,139,109	140,773,447	304,912,556
Wood and paper	7,152	775,207,859	111,322	131,089,861	203,856,170	283,260,565	487,116,735
Iron and its products	1,138	575,680,424	77,080	98,363,983	194,725,179	187,672,905	382,398,084
Non-ferrous metals.	344	104,079,490	17,936	22,692,784	31,439,989	41,149,894	72,589,883
Non-metallic minerals	1,075	209,641,529	24,393	28,374,655	67,780,080	75,278,296	143,058,376
Chemicals and allied products	468	118,382,642	12,571	16,192,457	43,108,870	45,495,135	88,604,005
Miscellaneous industries	577	100,563,915	18,794	24,259,876	29,842,728	44,894,581	74,737,309
Central electric stations	857	484,669,451	10,714	15,234,678	–	73,636,094	73,636,094
1922.							
Total	**22,541**	**3,244,302,410**	**474,430**	**519,431,312**	**1,233,774,723**	**1,198,434,407**	**2,482,209,130**
Vegetable products.	4,355	371,361,682	63,217	64,424,922	330,589,052	206,946,749	537,535,801
Animal products	5,118	201,829,414	49,595	49,933,679	264,078,631	107,473,382	371,552,013
Textile products	1,709	268,065,238	88,048	76,224,361	153,066,593	155,493,510	308,560,103
Wood and paper.	6,983	761,188,396	118,462	132,084,911	206,682,820	283,131,932	489,814,782
Iron and its products	1,040	526,109,953	74,588	90,605,157	168,282,265	163,302,638	331,584,903
Non-ferrous metals.	325	102,208,275	18,222	21,451,629	30,861,895	39,993,798	70,855,693
Non-metallic minerals	1,095	238,691,461	22,468	27,204,642	63,377,262	77,911,159	141,288,421
Chemicals and allied products	469	118,025,483	14,082	16,770,503	47,039,926	48,904,259	95,944,185
Miscellaneous industries	542	88,753,756	15,064	17,236,255	19,796,279	32,918,084	52,744,363
Central electric stations	905	568,068,752	10,684	14,495,250	–	82,328,866	82,328,866
1923.							
Total	**22,642**	**3,389,322,950**	**525,267**	**571,470,028**	**1,470,140,139**	**1,311,625,375**	**2,781,165,514**
Vegetable products.	4,427	385,725,299	65,395	67,441,626	337,790,150	209,884,136	547,674,286
Animal products	5,078	207,000,471	61,517	52,870,124	273,995,639	110,090,176	384,085,815
Textile products	1,817	283,248,204	92,669	81,244,205	176,445,427	157,993,769	334,439,196
Wood and paper	6,875	801,085,402	128,404	147,315,373	236,808,842	319,216,193	556,025,035
Iron and its products	1,000	552,272,800	88,071	115,453,809	256,417,991	209,541,556	465,959,547
Non-ferrous metals.	333	105,644,467	21,409	25,015,665	42,775,264	45,424,062	88,199,326
Non-metallic minerals	1,091	243,519,222	24,978	29,280,591	69,302,684	74,673,276	143,975,960
Chemicals and allied products	475	126,537,481	15,149	18,433,679	54,638,062	56,606,094	111,244,156
Miscellaneous industries	589	92,817,021	16,580	19,630,918	21,966,080	36,454,817	58,420,897
Central electric stations	957	581,472,583	11,095	14,784,038	–	91,141,296	91,141,296
1924.							
Total	**22,178**	**3,538,813,460**	**598,593**	**559,884,045**	**1,438,499,681**	**1,256,643,901**	**2,695,053,582**
Vegetable products.	4,414	414,922,612	66,183	70,638,304	365,614,854	220,330,748	585,945,602
Animal products	4,816	208,466,666	57,779	53,270,202	269,993,396	109,783,926	379,777,322
Textile products	1,781	298,665,942	90,254	77,924,749	179,551,579	141,803,602	321,355,181
Wood and paper	6,906	879,307,261	127,551	148,529,075	246,078,592	300,425,516	546,504,108
Iron and its products	1,003	535,924,351	78,314	99,567,510	195,981,347	174,107,327	370,088,674
Non-ferrous metals.	341	114,354,971	21,670	26,118,839	42,255,294	50,968,079	93,223,373
Non-metallic minerals[2]	1,095	235,613,111	24,186	29,559,746	61,741,225	76,932,578	138,573,803
Chemicals and allied products	457	126,495,685	13,796	17,074,529	54,311,913	53,905,324	108,217,237
Miscellaneous industries	414	96,497,768	15,942	19,254,507	22,881,481	33,317,033	56,198,514
Central electric stations	951	628,565,093	12,828	17,946,584	–	95,169,768	95,169,768

[1]See note to Table 1 on page 403. [2]A belated revision in the cement industry raised the salaries and wages paid in this group to $ 9,551,746 and reduced the gross value of products to $138,318,637.

2.—Summary of Statistics of Manufactures, by Industrial Groups, 1917-1927[1]—concluded.

(All establishments irrespective of the number of employees.)

Industrial Groups.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1925.	No.	$	No.	$	$	$	$
Total	**22,331**	**3,808,309,981**	**544,225**	**596,015,171**	**1,587,665,408**	**1,360,879,907**	**2,948,545,315**
Vegetable products.	4,558	439,490,764	72,035	72,796,657	404,684,887	227,526,377	632,211,264
Animal products	4,892	210,015,438	63,675	55,285,458	315,914,684	115,863,479	431,778,163
Textile products	1,640	305,776,409	94,531	81,573,988	193,238,560	143,950,124	337,188,684
Wood and paper	6,652	907,204,530	127,859	148,457,748	246,551,591	310,642,862	557,194,453
Iron and its products	1,075	567,912,477	90,125	117,642,470	206,337,132	205,041,508	411,378,640
Non-ferrous metals.	378	181,600,227	27,735	35,713,903	74,068,260	85,701,766	159,770,026
Non-metallic minerals	1,191	239,823,825	24,468	29,892,659	65,278,752	78,969,840	144,248,592
Chemicals and allied products	510	126,483,348	13,951	17,469,157	56,299,219	56,607,527	112,906,746
Miscellaneous industries	428	104,281,876	16,583	18,427,224	25,292,323	33,988,542	59,280,865
Central electric stations	1,007	726,721,087	13,263	18,755,907	–	102,587,882	102,587,882
1926.							
Total	**22,708**	**3,981,569,590**	**581,539**	**653,850,933**	**1,755,158,399**	**1,492,645,039**	**3,247,803,438**
Vegetable products.	4,529	449,259,094	73,908	75,349,586	414,316,414	244,004,302	658,320,716
Animal products	4,896	223,938,559	67,843	60,203,986	329,114,267	122,920,658	452,034,925
Textile products	1,698	317,275,429	100,572	88,596,752	202,832,383	163,502,261	366,334,644
Wood and paper	6,751	929,589,278	134,187	160,916,729	261,001,976	339,062,685	600,064,661
Iron and steel products	1,142	597,982,098	103,510	137,640,065	258,020,373	247,168,476	505,188,849
Non-ferrous metals.	403	202,503,426	30,095	39,201,147	90,613,004	92,888,719	183,501,723
Non-metallic minerals	1,240	261,724,184	26,045	31,986,949	82,293,319	91,863,604	174,156,923
Chemicals and allied products	556	133,407,891	14,345	18,309,377	60,124,582	62,464,944	122,589,526
Miscellaneous industries	436	109,669,565	17,628	21,703,342	30,307,874	39,835,657	70,143,531
Central electric stations	1,057	756,220,066	13,406	19,943,000	26,534,207	88,933,733	115,467,940
1927.							
Total	**22,936**	**4,337,631,558**	**618,933**	**693,932,228**	**1,789,574,604**	**1,635,923,936**	**3,425,498,540**
Vegetable products.	4,793	494,176,054	78,300	81,830,734	429,325,105	283,374,975	712,700,080
Animal products	4,692	233,113,872	68,381	61,407,018	325,455,482	132,260,556	457,716,038
Textile products	1,802	346,512,165	107,519	95,891,243	198,870,157	183,137,300	382,007,457
Wood and paper	6,811	1,023,301,749	150,550	167,995,734	271,780,232	357,786,924	629,567,156
Iron and its products	1,148	638,914,893	106,293	143,351,174	261,102,679	264,819,160	525,921,839
Non-ferrous metals.	401	208,957,166	33,443	44,154,695	87,612,666	112,757,295	200,369,961
Non-metallic minerals	1,184	280,033,057	26,662	33,958,541	86,312,529	89,433,536	175,746,065
Chemicals and allied products	561	134,618,839	14,559	18,656,851	63,630,588	63,854,084	127,484,672
Miscellaneous industries	447	111,178,478	18,518	23,739,923	34,699,896	44,466,809	79,166,705
Central electric stations	1,097	866,825,285	14,708	22,946,315	30,785,270	104,033,297	134,818,567

[1]See note to Table 1 on page 403.

Subsection 3.—Summary Statistics of Manufacturing Production.

Summary Statistics of Manufactures.—In Table 3 will be found an analysis of the most important statistics of local manufactures for the five years from 1922 to 1926, here brought together in order that the tendencies in Canadian manufacturing industries may be traced as clearly as possible through this latest period of their development. Similar figures for the years from 1917 to 1921 will be found at p. 384 of the 1926 Year Book, but the inflation of values in the war and immediate post-war period makes the figures for these years largely incomparable. One very important figure, however, where the trend of development proceeds clearly and uninterruptedly throughout the nine years, is concerned with the use of power, the total horse power employed increasing from 1,664,578 in 1917 to 3,134,248 in 1926 or by 88 p.c. in 9 years. In the same period the horse power used per establishment increased from

75 to 145 and the horse power per wage-earner from 3·04 to 6·37, indicating the rapidly increasing contribution of power to manufacturing production.

The increases from $143,929 to $175,338 in average capital per establishment between 1922 and 1926, and in average number of employees from 21·1 to 25·6 are very significant figures. It is also noteworthy that the percentage of salaried employees to total employees has declined between 1921 and 1926 from 16·4 to 14·1—or approximately from one-sixth to one-seventh. In other words, there were in 1926 six wage-earners employed to each salary earner, as compared with five wage-earners to each salary earner in 1921. This is probably due to the fact that in the depression of 1920-21, wage-earners, with a less secure tenure of their positions, were laid off to a proportionately much greater extent than salary earners, so that the proportion of salary earners on the 1921 staffs was abnormally large.

3.—Summary Statistics of Manufactures, 1922-26.

(All establishments other than construction and custom and repair industries, irrespective of the number of employees.)

Items.	1922.	1923.	1924.	1925.	1926.[1]
Establishments.....No.	22,541	22,642	22,178	22,331	22,708
Capital..... $	3,244,302,410	3,380,322,950	3,538,813,460	3,808,309,981	3,981,569,590
Av. capital per establishment..... $	143,929	149,295	159,563	170,538	175,338
Av. capital per employee $	6,838	6,435	6,959	6,999	6,846
Av. capital per wage-earner..... $	8,143	7,562	8,186	8,162	7,967
Total employees.....No.	474,430	525,267	508,503	544,225	581,539
Av. no. employees per establishment.....No.	21·1	23·2	22·9	24·4	25·6
Total salaries and wages... $	510,431,312	571,470,028	559,884,045	596,015,171	653,850,933
Av. salaries and wages per establishment..... $	22,645	25,239	25,245	26,690	28,794
Av. salaries and wages per employee..... $	1,076	1,089	1,101	1,095	1,124
Employees on salaries.....No.	76,040	78,273	76,230	77,623	81,794
Av. salaried employees per establishment.....No.	3·4	3·5	3·4	3·5	3·6
Salaries..... $	136,219,171	142,738,681	139,614,639	143,056,516	152,705,944
Av. salary..... $	1,791	1,824	1,831	1,843	1,867
Employees on wages.....No.	398,390	446,994	432,273	466,602	499,745
Av. no. of wage-earners per establishment.....No.	17·7	19·7	19·5	20·9	22·0
Wages..... $	374,212,141	428,731,347	420,269,406	452,958,655	501,144,989
Av. wage..... $	939	959	972	971	1,003
Cost of material..... $	1,283,774,723	1,470,140,139	1,438,409,681	1,587,665,408	1,755,158,399
Av. cost of material per establishment..... $	56,953	64,930	64,858	71,097	77,293
Av. cost of material per employee..... $	2,709	2,801	2,827	2,917	3,018
Value added in manufacture $	1,198,434,407	1,311,025,375	1,256,643,901	1,360,879,907	1,492,645,039
Av. value added per establishment..... $	53,167	57,902	56,662	60,941	65,732
Av. value added per employee..... $	2,523	2,494	2,473	2,501	2,567
Gross value of product..... $	2,482,209,130	2,781,165,514	2,695,053,582	2,948,545,315	3,247,803,438
Av. gross value of product per establishment..... $	110,120	122,832	121,519	132,038	143,025
Av. gross value of product per employee..... $	5,232	5,295	5,300	5,418	5,585
Power employed[2].....H.P.	2,016,563	2,146,903	2,538,535	2,888,164	3,134,248
Av. no. of horse power per establishment[2].....H.P.	95	99	120	135	145
Av. no. of horse power per wage-earner[2].....H.P.	5·14	4·87	5·97	6·29	6·37
Piece workers[3].....No.	6,095	8,642	7,674	3,735	2,431
Earnings of piece workers[3]. $	1,284,437	1,627,055	1,485,422	692,302	466,708

[1] A change in the method of computing the number of employees in 1925 and 1926 increased the number somewhat over that which the method previously used would have given. There was therefore a proportionate reduction in the 1926 averages per employee and wage-earner as compared to what these averages would have been under the former method.

[2] The figures of power in this table represent the installation in manufactures exclusive of central electric stations, which are also excluded from the number of establishments and of employees in working out the averages. These figures are thus not comparable with those given in this table in the 1926 Year Book.

[3] Not included in general statistics of number of employees or of earnings.

Value of Products.—The gross value of manufactured products in 1926 was reported as $3,247,803,438; the cost of materials was $1,755,158,399, leaving $1,492,645,039 as the value added by manufacture. As the finished products of one branch of manufacture are constantly used as materials in other branches in the ascending scale of modern industry, it follows that they are counted over and over again, swelling in this manner the total gross value of products. The total value of manufactured products, strictly defined, would include:—(1) the value of all raw materials obtained from the extractive and primary production industries which have entered into the manufacturing output, and (2) the entire value added to these raw materials by manufacturing processes from the time they first entered any factory up to the close of the census year. This value would be very much greater than the $1,492,645,039 shown as having been added by manufacture.

Volume of Manufacturing Production in Recent Years.—An investigation of the greatest importance, especially in a period when values are rapidly changing, is that of the volume of manufacturing production as distinguished from its value. This is a difficult subject of research, particularly on account of the constant changes in the commodities manufactured and in their relative proportions. It is, however, a matter in which tentative conclusions are better than none, and accordingly an estimate of the volume of manufacturing production in recent years has been attempted in Table **4**, on the following plan. First, the gross value of the manufactured commodities produced in 1917, the first year of the annual census of manufactures, is taken as 100, and later years given as a percentage of this. Next, the average index number of the wholesale prices of the 129 manufactured commodities used in the Bureau's index number of wholesale prices are given for each year, and in the next column reduced to a percentage relative to 1917. Finally, the values, expressed as a percentage, are divided by the prices, also expressed as a percentage, and the quotient is considered to indicate the volume of manufacturing production. In the table which follows may be noted the decline in the volume of production between 1918 and 1920, in spite of increasing values, the recovery in the volume of production in 1922, 1923 and 1924, in spite of diminished values, and the increase in both volume and values in 1925, when the volume of manufacturing production, thus estimated, was about one-eighth greater than in 1917. In 1927, although the prices of manufactured goods were more than 15 p.c. below the level of 1917, total value had increased by 19 p.c. and volume by nearly 41 p.c.

4.—Volume of Manufacturing Production, 1917-1927.

Years.	Values.		Prices.		Index No. Volume of Manufacturing Production.
	Gross Value Manufacturing Production.	Percentage relative to 1917.	Index No. Prices of Manufactured Commodities.	Percentage relative to 1917.	
	$				
1917	2,873,268,183	100·00	175·5	100·00	100·00
1918	3,289,764,146	114·49	196·9	112·19	102·05
1919	3,290,500,585	114·52	204·4	116·46	98·35
1920	3,772,250,057	131·28	242·0	137·89	95·20
1921	2,576,037,029	89·65	180·0	102·56	87·41
1922	2,482,209,130	86·38	155·0	88·31	97·81
1923	2,781,165,514	96·79	159·1	90·65	106·77
1924	2,695,053,582	93·80	157·3	89·63	104·65
1925	2,948,545,315	102·62	160·2	91·28	112·42
1926	3,247,803,438	113·03	154·3	87·92	128·56
1927	3,425,498,540	119·22	148·6	84·67	140·81

Consumption of Manufactured Products.—One of the beneficial results of placing the classification of external trade and of production upon a common basis is exhibited in Table 5, where the value of commodities made available for consumption in Canada is derived from the statistics of the two important fields. For example, the value of all manufactured commodities made available in a period approximately corresponding to 1926 was $3,343,397,137, a figure obtained by adding to the value of manufactured products in 1926 the value of the imports of manufactured and partly manufactured goods during the fiscal year ended Mar. 31, 1927, and deducting the value of the corresponding exports for the same period. Vegetable, textile and iron products led the other groups in the value of finished goods made available for consumption. The large amount of vegetable products made available for consumption was due to the large production, as the exports exceeded the imports, while textiles and iron and steel products, in addition to a large production, showed an excess of imports over exports of $142,000,000 for textiles and $152,000,000 for iron and steel products.

5.—Consumption of Manufactured Products, by Groups, 1926, with Totals for 1922-1925.

NOTE.—Statistics of manufacturing production are for the calendar years. Imports and exports of manufactured and partly manufactured goods are for the fiscal years ended Mar. 31 of the following years.

Groups of Industries.	Value of manufactured products.	Manufactured and partly manufactured goods.		Value of manufactured products available for consumption.
		Value of imports.	Value of exports.	
	$	$	$	$
Vegetable products	658,320,716	124,776,657	146,553,754	636,543,619
Animal products	452,034,925	27,137,009	87,568,152	391,603,782
Textile products	366,334,644	148,360,194	6,077,355	508,617,483
Wood and paper products	600,064,661	46,914,298	257,030,265	389,948,694
Iron and its products	505,188,849	226,594,326	74,277,763	657,505,412
Non-ferrous metal products	183,501,723	47,983,485	53,910,810	177,574,398
Non-metallic mineral products	174,156,923	51,805,752	7,469,459	218,493,216
Chemicals and allied products	122,589,526	31,844,715	16,574,753	137,859,488
Miscellaneous industries	70,143,531	62,189,697	18,047,318	114,285,910
Central electric stations	115,467,940	88,012	4,590,817	110,965,135
Total 1926	**3,247,803,438**	**767,694,145**	**672,109,446**	**3,343,397,137**
Total 1925	**2,948,545,315**	**671,932,363**	**692,924,285**	**2,927,553,393**
Total 1924	**2,695,053,582**	**576,964,069**	**591,695,831**	**2,680,321,820**
Total 1923	**2,781,165,514**	**639,343,645**	**591,829,306**	**2,828,679,853**
Total 1922	**2,439,843,766**	**574,551,323**	**515,173,415**	**2,499,221,674**

Section 2.—Production by Industrial Groups and Individual Industries.

One of the factors in the progress of Canada is the possession of many natural resources favourable to industrial growth. It is upon the country's agricultural resources, forests, minerals and wild life that Canada's industries are mainly based. The sea and lake fisheries also make an important contribution of raw material to the manufacturing industries of the Dominion. Nevertheless, the industrial development of Canada was a matter of small beginnings and gradual growth over a period of many years, and the comparatively small home market, restricted at the

present time to a population of nine and a half millions, a large part of it in scattered agricultural areas, is still one of the difficulties of the situation. Yet Canada is now not merely the second largest manufacturing country in the British Empire; her exports to the other Dominions consist largely of manufactured goods. The exports of manufactured and partly manufactured goods to the United States also exceed the exports of raw material. The rate at which this movement is to continue depends almost entirely upon growth within the Dominion—upon the further development of the many-sided physical assets of the country.

Subsection 1.—Chief Component Materials of Manufactured Goods.

A classification based on the chief component material in the various products of each manufacturing establishment was applied for the first time in the compilation of the returns for 1920. The number of groups was reduced from fifteen to nine to correspond with the external trade classification and the classes of industry were somewhat altered to conform with recent industrial developments. Subsequently the central electric stations industry was taken out of the miscellaneous class and now forms a class by itself.

Vegetable Products.—With the exception of rubber, coffee and spices and sugar factories, the industries of this group are dependent mainly upon domestic farm products as raw materials. The milling industry, which has existed to meet domestic needs for more than 300 years, is one of the Dominion's oldest industries, but it is only within recent times that its progress has become spectacular. The war and the demand it created gave a great impetus to this trade, and the 442 flour mills, many of them of the most modern type and highest efficiency, have now attained a capacity far in excess of Canada's demands. During 1927, productive capacity reached about 122,000 barrels per day, and during the crop year ended July 31, 1928, nearly 9,865,000 barrels were exported to many countries, Great Britain receiving the largest consignments. The flour manufactured from Canadian hard spring wheat is particularly sought after in overseas markets and is finding a ready sale in the Far East, where wheat bread is being consumed to a greater extent than formerly. Other industries contributing largely to food manufacture are sugar refineries, bread, biscuits, etc., and, to a lesser degree, plants engaged in the canning of fruits and vegetables.

Raw material imported from tropical countries forms the basis for an industry of a different character. Canada now stands fourth among the countries of the world as a manufacturer of rubber goods. Existing plants represented in 1927 a capital of over $66,000,000 and gave employment to more than 15,000 workers receiving $16,600,000 in wages and salaries and producing goods to the value of over $91,000,000.

Animal Products.—Another form of food manufacture—that of slaughtering and meat-packing—has also made great strides. It comes as a surprise to many that slaughtering and meat-packing was until lately at the head of all the single industries in regard to the value of the products, and is now only surpassed by the pulp and paper and flour-milling industries. Another industry which manufactures a product of farm animals and which has been for many years of leading importance in Canada is the butter and cheese industry. Originating in the agricultural districts of the Maritime Provinces, the Eastern Townships of Quebec, and the southern counties of Ontario, it is now developing rapidly in the Prairie Provinces and in the more recent settlements of northern Quebec and Ontario. For an industry so

large in the aggregate, it is unique in having shown very little tendency toward consolidation in large units, the gross production of $120,000,000 in 1926 coming from no fewer than 3,021 plants, mostly small and scattered at convenient points throughout the farming communities. Many of the plants are operated on the co-operative basis. The leather industries also have long been established on a considerable scale, mainly, of course, because the large number of cattle raised and slaughtered provide a ready supply of hides. There are large tanneries in the eastern provinces, and no fewer than 186 boot and shoe factories were in operation in 1926, chiefly in Quebec and Ontario, representing a total capital of over $31,000,000, with an annual output of $46,000,000, and employing 15,016 men and women. The canning and preserving of fish also calls for reference. Concentrated, naturally, upon the Pacific and Atlantic coasts, this industry has become one of the most important, not perhaps so much from the point of view of achievement as of promise. In 1926 there were in existence 831 establishments engaged in the canning, curing and packing of various kinds of fish. One recent development of great possibilities is the setting up of establishments to utilize the catches from the large northern lakes of the Prairie Provinces.

Textiles.—Although the production of cotton and woollen fabrics, hosiery, knitted goods, men's and women's clothing and so forth amounted in 1926 to a total valued at over $366,000,000, considerable quantities of yarns and cloth are still imported into Canada. Canadian textile factories are capable of supplying ordinary domestic needs without undertaking the production of the highest grade materials such as are manufactured in Great Britain, where for several centuries hereditary skill has been developed. The imports of manufactured or partly manufactured textiles during the fiscal year ended March, 1927, were $139,730,000, or 38 p.c. of the gross value of the manufactured product during the calendar year 1926.

The woollen industry may be divided into four sections, according as the chief product of value is cloth, yarn, carpets and mats or miscellaneous goods. Of the 116 plants in operation during 1926, 54 were engaged chiefly in manufacturing cloth, 17 in making yarns, 17 in making carpets and rugs and 28 in making miscellaneous woollen goods. The total value of woollen goods manufactured by the four classes of mills during 1926 amounted to $31,400,000, as compared with $31,250,000 in 1925.

A sketch of the cotton industry, which is the most important of the textile group, is given under the heading of "Typical Individual Manufactures" at page 429 in the Manufactures section of the Canada Year Book, 1924.

Wood and Paper.—An outstanding feature of the general expansion of Canadian commerce since the opening of the century has been the change in the industries associated with forestry. Lumber output has fluctuated greatly and actually decreased in recent years, as a result of the post-war depression. For example, in 1911 the output of manufactured lumber was 4,918,000,000 board feet, valued at $75,831,000, as compared with 4,098,081,000 feet, valued at $97,508,786, in 1927. In contrast with this is the progress in pulp and paper production. The census of 1881 recorded only 36 paper and 5 pulp-mills in existence in Canada. In 1927 there were 114 pulp and paper-mills, consuming more than 4,387,000 cords of pulpwood in the year and using hydro power to the extent of over 1,300,000 h.p. Production of wood pulp in 1917 was 1,464,308 tons and in 1927, 3,278,978 tons. Production of newsprint in 1917 was 689,847 tons, in 1921, 805,114 tons, in 1923, 1,252,000 tons and in 1924, 1,388,081 tons. In 1927 the production was 2,082,830 tons, an increase

of 10 p.c. over 1926. Included in the totals are hanging and poster papers. Canadian production in 1927 exceeded that of the United States by about 600,000 tons, so that Canada now occupies first place among the countries of the world in the production of newsprint paper.

Iron and Steel.—The primary production of iron and steel in Canada has always been handicapped by the fact that nowhere in Canada are workable deposits of coal and iron ore to be found in juxtaposition. The nearest approach is in Nova Scotia, where there is an abundant supply of coal, while iron ore is obtained from Newfoundland. In Central Canada, where the secondary iron and steel industries are chiefly located, there are at present neither supplies of coal nor high-grade deposits of iron ore. There is a possibility, however, that high-grade bodies of ore may be found, and eventually the huge reserves now known to exist, though they require an unduly expensive smelting process, will become more valuable. From the manufacturing standpoint conditions are much more favourable, as these areas are abundantly supplied with both hydro-electric power and metals, such as nickel, chromium, molybdenum, etc., used in the manufacture of alloy steels, which form an increasingly large part of the output from modern steel works.

Iron ore, which was imported largely from Newfoundland and the State of Minnesota, was treated in 1926 in 33 active furnaces and rolling mills, with a capital of $86,987,454 and a gross production valued at $41,183,565. There were, in 1926, no fewer than 1,142 establishments handling iron and steel products, aside from the numerous custom and repair shops engaged in re-conditioning iron and steel goods. The plants represented a capital of $597,982,098 and had a gross output valued at $505,188,849. A great deal of this output is represented by agricultural implements, for which there is a large domestic demand, by factory and railway equipment and commercial and passenger motor vehicles. The output of automobiles has increased rapidly in recent years, the total production in 1922 being valued at $81,956,429, in 1925 at $110,835,380 and in 1926 at $133,598,456, so that this industry had in the latest year a greater production than any other in the iron and steel group and stood fifth in order of importance among all the industries of Canada.

Non-Ferrous Metals.—During 1926 there were 403 plants in Canada manufacturing products from metals other than iron and steel. Employment showed an increase from 18,222 in 1922 to 21,409 in 1923, 27,735 in 1925 and 30,095 in 1926.

The largest industry in this group in 1926 was that of non-ferrous smelting and refining with a gross production of $72,853,566. This industry has been expanding rapidly in Canada in recent years, due to developments at Trail in British Columbia, in the Sudbury district of Ontario and in the Rouyn field of Quebec. Of almost equal importance in 1926 was the electrical apparatus and supplies industry with a gross production of $69,767,308. This industry is also showing rapid growth in keeping with the widely increasing development and utilization of hydro-electric energy in Canada. The development of cheap electric power has done much to popularize the use of electrical equipment, and the future demand for such apparatus will probably only be limited by the development of adequate power.

The aluminium industry in America dates from 1890, when the first successful process was worked out for the economical extraction of the metal from its ores. The lightness and ductility of the metal, and the fact that it is not readily attacked by organic acids, air or water, together with its capacity for transmitting heat readily, soon brought it into favour as a material for kitchen utensils, and in this connection it has become well known. Large quantities of aluminium wire are

now used for electric transmission lines and quantities are used in the manufacture of such apparatus as cream separator parts and other light machinery. Alloyed with magnesium, it possesses great tensile strength and finds extensive use. Aluminium bronzes, too, are widely used, and during the war great quantities were utilized in the manufacture of aeroplane engines and parts.

Another industry of some importance consisted of 98 firms engaged principally in the rolling, casting and manufacturing of brass and copper, the principal products being castings and machinery fittings, brass steam fittings, plates and sheets, rods and wire cloth. The selling value of the products was $22,028,636, while the materials were worth $11,810,686.

Non-Metallic Minerals.—The gradual recovery in business conditions since 1921 is demonstrated by developments in the non-metallic mineral group. The recent expansion is accentuated by the growth of the petroleum-refining industry, which in 1926 produced nearly 41 p.c. of the gross value of the entire production of the group. The 23 plants were located with a view to economy of distribution, based on the greatest accessibility to the source of supply and the proximity of the markets. The refineries on the eastern and western coast obtain their crude petroleum from South America, Mexico and the United States by tank steamers, bringing transportation costs to a minimum. Those situated in the central part of the Dominion are necessarily supplied by rail or pipeline. The more general use of the automobile has resulted in a continually expanding demand for gasolene and lubricating oils. The installation of oil-using equipment in industrial plants for generating power and in buildings of various kinds for heating purposes has also increased the consumption of fuel oil.

The illuminating and fuel gas industry of Canada is chiefly centred in the larger cities, especially in parts of the country where manufacturing predominates. Coal gas and carburetted water gas are the most important products, but pintsch gas is made at many divisional points along the railways to meet the demand for lighting purposes on passenger trains. Acetylene gas is used in several prairie towns where the size of the municipality is not sufficient to warrant a gas plant. The facility with which by-products, such as coke, tar and light oils, are turned out in connection with large-scale production, becomes an incentive to plant expansion, provided that a demand is assured by increasing population and industrial development in the vicinity. The burning of coke in the house furnace, the necessity of enriching the soils with nitrates, the increase of refrigerating operations and the extended use of tar products have prompted the larger plants to increase their output. The industry is also intimately connected with the iron and steel industry or dependent upon the demand of the non-ferrous smelting plants. Coke plants are maintained at Sydney, Hamilton and Sault Ste. Marie by the three principal iron and steel companies, also by the International Coal and Coke Co., the Crow's Nest Pass Co. and the Granby Consolidated Mining, Smelting and Power Co.

Other industries of a varied nature included in this group are the manufacture of asbestos products, the glass industry, the manufacture of abrasives, the preparation of ornamental and monumental stone, the bottling of aerated waters and the manufacture of various clay products and cement.

Chemicals.—Chemical industries, associated in many phases with the use of hydro-electric power, have recorded marked growth in Canada in recent years. Owing to Canada's great water power resources and in particular to the fact that

See page 420 for continuation.

6.—Statistics of the Numbers, Capital, Employees, Salaries and Wages, Cost of

No.	Groups and Kinds of Industries.	Establishments.	Capital Employed.	Salaried Employees.		
				Male.	Female.	Salaries.
		No.	$	No.	No.	$
	Canada	**22,708**	**3,981,569,590**	**63,481**	**18,313**	**152,705,944**
	TOTALS BY PROVINCES.					
1	Prince Edward Island	299	2,850,010	164	33	168,709
2	Nova Scotia	1,163	118,050,902	1,213	378	2,451,268
3	New Brunswick	910	95,661,154	1,260	319	2,868,984
4	Quebec	7,164	1,216,975,958	17,890	4,365	42,621,293
5	Ontario	9,457	1,985,165,921	33,098	11,112	82,705,144
6	Manitoba	797	127,445,924	2,907	715	6,658,489
7	Saskatchewan	674	33,943,060	1,074	200	2,135,585
8	Alberta	749	72,468,286	1,686	398	3,711,398
9	British Columbia and Yukon	1,495	329,008,375	4,189	793	9,385,074
	TOTALS BY GROUPS.					
1	Vegetable products	4,529	449,259,094	7,654	2,155	19,479,894
2	Animal products	4,896	223,938,559	8,991	1,908	16,347,519
3	Textiles and textile products	1,698	317,275,429	5,466	2,646	15,890,317
4	Wood and paper products	6,751	929,589,278	13,759	4,203	34,865,789
5	Iron and steel products	1,142	597,982,098	10,405	2,710	26,346,010
6	Non-ferrous metal products	403	202,503,426	4,391	1,434	10,608,057
7	Non-metallic mineral products	1,240	261,724,184	2,959	679	6,423,911
8	Chemicals and chemical products	556	133,407,891	2,849	1,050	8,015,625
9	Miscellaneous industries	436	109,669,565	2,153	578	5,602,544
10	Central electric stations	1,057	756,220,066	4,854	950	9,126,278
	GROUP 1.—VEGETABLE PRODUCTS.					
	Total	**4,529**	**449,259,094**	**7,654**	**2,155**	**19,479,894**
1	Biscuits, confectionery and chewing gum	315	42,422,378	1,383	452	3,466,128
2	Bread and other bakery products	2,214	37,416,979	549	239	1,258,897
3	Breweries	63	53,893,942	593	68	1,803,133
4	Cigars and cigarettes	84	33,395,516	964	263	2,399,560
5	Cocoa and chocolate	4	3,866,497	106	22	250,079
6	Coffee and spices	50	9,650,748	257	78	759,824
7	Distilleries	15	26,422,006	110	26	312,087
8	Feed and grist mills	849	5,154,458	18	8	32,618
9	Flour mills	442	53,181,355	937	185	2,145,172
10	Fruit and vegetable canning, evaporating, etc.	215	28,103,411	350	145	741,969
11	Ice cream cones	7	642,402	5	1	17,245
12	Linseed oil and oil cake	8	2,691,550	31	6	84,369
13	Macaroni and vermicelli	11	1,286,097	49	14	106,091
14	Malt mills	5	3,470,215	28	6	75,778
15	Maple syrup and sugar	6	267,481	15	4	37,030
16	Miscellaneous food industries	50	8,097,986	178	60	432,519
17	Miscellaneous vegetable products	6	1,658,435	11	3	25,355
18	Pickles, vinegar and cider	57	5,850,102	108	30	246,841
19	Rice mills	5	1,502,809	21	4	68,690
20	Rubber footwear	9	14,482,939	519	174	1,031,890
21	Rubber tires and other rubber goods	30	48,178,763	843	250	2,064,444
22	Starch and glucose	3	4,964,775	37	28	152,566
23	Sugar refineries	8	49,748,404	299	53	1,002,218
24	Syrups	8	177,648	7	5	18,715
25	Tobacco, chewing, smoking and snuff	38	9,053,740	183	22	794,052
26	Wines and grape juice	27	3,678,458	53	9	152,624
	GROUP 2.—ANIMAL PRODUCTS.					
	Total	**4,896**	**223,938,559**	**8,991**	**1,908**	**16,347,519**
1	Animal hair goods	6	702,836	18	3	47,806
2	Animal oils and fats	6	754,214	7	4	21,462
3	Belting leather	10	1,439,634	57	17	145,124
4	Boot and shoe findings	15	1,415,737	32	6	79,586
5	Boots and shoes, leather	186	31,325,331	1,010	330	2,647,677
6	Butter and cheese	3,021	39,964,526	3,710	608	4,488,652
7	Condensed milk	26	7,127,063	129	34	288,849
8	Fish curing and packing	831	28,868,071	501	45	733,760
9	Fur dressing and dyeing	11	1,588,357	45	5	126,262
10	Fur goods	221	11,733,311	321	197	867,605
11	Gloves and mittens, leather	41	2,328,940	156	41	288,456
12	Harness and saddlery	246	5,989,288	165	57	309,538
13	Human hair goods	5	49,994	1	1	1,671

Materials and Value of Products of Canadian Manufacturing Industries, 1926.

Wage-Earners.			Power installed.	Cost of Fuel used.	Cost of Materials.	Value of Products.		No.
Male.	Female.	Wages.				Net.	Gross.	
No.	No.	$	H.P.	$	$	$	$	
385,282	**114,543**	**501,144,989**	**5,310,102**[1]	**59,695,997**	**1,755,158,399**	**1,492,645,039**	**3,247,803,438**	
1,234	830	521,694	6,040	111,057	2,638,244	1,431,091	4,069,335	1
11,811	3,380	10,563,439	180,029	2,589,290	39,686,139	33,819,503	73,505,642	2
12,359	3,736	11,740,750	121,321	1,964,817	44,535,406	29,586,833	74,122,239	3
114,024	44,390	146,704,852	2,624,257	16,333,447	448,584,313	456,716,511	905,300,824	4
184,410	51,733	252,459,095	2,926,375	29,392,012	924,598,851	753,334,653	1,677,933,504	5
14,515	3,064	20,315,361	310,673	1,888,580	75,588,993	57,129,459	132,718,452	6
3,277	353	4,261,960	87,363	1,606,284	29,142,700	17,965,397	47,108,097	7
6,995	1,154	9,097,156	140,331	1,383,906	50,192,669	33,232,962	83,425,631	8
36,577	5,903	45,480,682	684,047	4,427,504	140,191,084	109,428,630	249,619,714	9
43,622	20,477	55,869,692	267,643	7,031,894	414,316,414	244,004,302	658,320,716	1
41,180	15,764	43,856,467	96,151	3,675,728	329,114,267	122,920,658	452,034,925	2
36,154	56,306	72,706,435	153,295	3,540,333	202,832,383	163,502,261	366,334,644	3
106,365	9,860	126,050,940	1,552,885	14,876,842	261,001,976	339,062,685	600,064,661	4
87,302	3,093	111,294,055	422,356	9,308,886	258,020,373	247,168,476	505,188,849	5
20,589	3,681	28,593,090	228,870	4,874,982	90,613,004	92,888,719	183,501,723	6
21,402	1,005	25,563,038	305,265	11,978,992	82,293,319	91,863,604	174,156,923	7
7,929	2,517	10,293,752	63,635	1,810,118	60,124,582	62,464,944	122,589,526	8
13,057	1,840	16,100,798	44,148	460,840	30,307,874	39,835,657	70,143,531	9
7,602	–	10,816,722	3,946,188	2,137,382	26,534,207	88,933,733	115,467,940	10
43,622	**20,477**	**55,869,692**	**267,643**	**7,031,894**	**414,316,414**	**244,004,302**	**658,320,716**	
4,473	5,668	7,289,422	16,050	560,364	23,644,255	25,534,581	49,178,836	1
11,059	1,592	13,473,242	10,325	1,546,678	32,928,065	29,991,944	62,920,009	2
3,275	40	3,930,436	18,577	569,111	14,448,510	29,154,450	43,602,960	3
1,838	3,269	3,359,872	2,250	75,092	16,090,776	33,920,624	50,011,400	4
246	209	395,658	2,597	32,801	2,364,882	1,541,205	3,906,087	5
376	329	614,848	2,684	36,649	12,289,936	3,209,337	15,499,273	6
700	179	975,035	7,093	368,780	3,676,197	8,540,709	12,216,906	7
1,132	2	703,561	31,837	89,237	17,915,541	3,130,921	21,046,462	8
3,933	133	4,341,113	81,934	518,478	145,989,909	22,544,370	168,534,279	9
2,378	4,005	2,337,093	11,204	278,695	14,036,616	9,193,982	23,230,598	10
44	24	48,632	62	25,957	119,198	305,861	425,059	11
193	1	198,263	1,532	20,006	5,364,364	1,122,560	6,486,924	12
133	121	144,378	847	10,917	960,373	600,137	1,560,510	13
141	–	207,337	2,472	66,966	2,105,700	1,837,401	3,943,101	14
27	2	18,186	92	4,959	336,610	157,016	493,626	15
470	242	713,656	3,882	103,185	4,467,723	4,457,409	8,925,132	16
106	10	116,788	1,253	39,232	2,769,388	1,021,179	3,790,567	17
499	343	645,948	1,643	103,300	3,178,261	3,825,773	7,004,034	18
49	–	51,936	570	460	1,576,485	175,327	1,751,812	19
3,395	2,066	4,410,274	12,597	159,175	10,213,176	12,716,568	22,929,744	20
5,343	997	7,201,415	35,492	482,376	39,689,013	23,889,380	63,578,393	21
426	20	485,842	1,920	245,179	3,199,003	1,789,857	4,988,860	22
2,458	106	2,965,922	19,406	1,634,993	48,848,507	15,422,180	64,270,687	23
25	14	29,333	48	4,125	257,764	110,196	367,960	24
780	1,136	1,069,306	922	41,307	6,496,375	8,675,986	15,172,361	25
123	19	142,196	359	13,862	1,349,787	1,135,349	2,485,136	26
41,180	**15,764**	**43,856,467**	**96,151**	**3,675,728**	**329,114,267**	**122,920,658**	**452,034,925**	
74	24	77,066	497	4,882	287,924	401,478	689,402	1
93	7	116,418	313	26,680	329,303	205,817	535,120	2
140	–	152,375	327	7,802	788,626	468,392	1,257,018	3
246	71	259,720	1,493	39,019	710,158	700,726	1,410,884	4
8,338	5,338	12,079,086	6,950	153,817	24,091,923	22,004,240	46,096,163	5
6,641	265	6,918,331	23,187	1,156,094	92,200,617	27,992,800	120,193,417	7
620	62	702,658	3,578	335,263	9,202,220	3,957,439	13,159,659	7
10,261	6,601	4,889,077	10,629	456,229	22,034,129	14,156,635	36,190,764	8
597	108	698,173	738	10,298	257,258	2,577,181	2,834,439	9
1,095	1,294	2,636,691	389	27,222	12,202,092	6,739,157	18,941,249	10
481	691	814,892	314	11,997	2,078,134	1,531,143	3,609,277	11
914	75	989,773	800	45,095	3,135,518	2,180,111	5,315,629	12
9	12	18,194	1	319	18,948	23,591	42,539	13

[1] Net; see pp. 450 and 451.

6.—Statistics of the Numbers, Capital, Employees, Salaries and Wages, Cost of con

No.	Groups and Kinds of Industries.	Establishments.	Capital Employed.	Salaried Employees.		
				Male.	Female.	Salaries.
		No.	$	No.	No.	$
	GROUP 2.—ANIMAL PRODUCTS—concluded.					
14	Leather goods, n.e.s.	38	1,422,594	76	26	178,241
15	Leather, tanned, etc.	108	29,348,291	267	61	756,911
16	Sausages and sausage casings	35	1,488,437	28	8	73,903
17	Slaughtering and meat packing	73	55,712,724	2,399	442	5,118,148
18	Trunks, bags, etc.	17	2,679,211	69	23	174,068
	GROUP 3.—TEXTILES.					
	Total	**1,698**	**317,275,429**	**5,466**	**2,646**	**15,890,317**
1	Awnings, tents and sails	49	1,918,171	78	23	170,224
2	Bags, cotton and jute	14	5,565,514	76	22	257,877
3	Batting	8	2,461,898	51	24	161,992
4	Carpets, mats and rugs	17	4,037,183	112	23	273,487
5	Clothing, men's factory	188	25,826,383	984	374	2,619,749
6	Clothing, women's factory	385	21,972,236	910	646	3,039,809
7	Cordage, rope and twine	11	15,679,509	89	28	253,092
8	Corsets	16	4,129,882	146	142	435,563
9	Cotton and wool waste	8	1,192,898	22	12	65,661
10	Cotton goods, n.e.s.	16	878,754	30	12	83,573
11	Cotton threads	5	4,154,658	75	26	171,066
12	Cotton yarn and cloth	38	83,439,179	474	97	1,368,574
13	Dyeing, cleaning and laundry work	350	17,278,327	382	271	1,225,766
14	Flax, dressed	13	307,723	4	–	5,800
15	Furnishing goods, men's	139	17,616,262	476	216	1,159,494
16	Hats and caps	138	7,107,380	341	173	877,630
17	Hosiery, knit goods and fabric gloves	167	51,609,116	647	373	2,056,561
18	Linen goods	6	1,074,854	12	5	43,734
19	Miscellaneous textiles, n.e.s.	6	2,873,281	29	7	74,719
20	Oiled and waterproof clothing	13	985,224	34	13	91,816
21	Silk goods	12	10,019,519	131	61	357,808
22	Woollen cloth	54	20,735,523	259	55	675,749
23	Woollen goods, n.e.s.	28	7,994,200	64	23	259,106
24	Woollen yarns	17	8,417,695	40	20	161,467
	GROUP 4.—WOOD AND PAPER PRODUCTS.					
	Total	**6,751**	**$29,589,278**	**13,755**	**4,203**	**34,865,789**
1	Beekeeper's and poultrymen's supplies	6	32,127	–	–	–
2	Blueprinting	13	172,278	15	5	38,728
3	Boats and canoes	98	1,616,908	45	12	101,888
4	Boxes and bags, paper	165	15,281,084	378	139	1,145,617
5	Boxes and packing cases	124	9,523,699	233	44	530,164
6	Carriages, wagons and sleighs	450	7,790,739	151	19	319,048
7	Carriage and wagon materials	9	1,058,050	16	4	47,521
8	Clothes pins	3	140,776	3	–	8,496
9	Coffins and caskets	36	2,991,223	45	18	129,190
10	Cooperage	80	1,994,010	34	9	86,893
11	Excelsior	10	265,600	14	2	29,258
12	Furniture and upholstering	331	34,070,226	738	253	2,002,774
13	Lasts, trees and pegs	13	1,045,940	46	9	93,664
14	Lithographing and engraving	112	15,909,878	554	280	1,959,226
15	Miscellaneous wood products	72	3,640,138	78	33	254,632
16	Paper goods, n.e.s.	27	3,507,774	104	86	273,738
17	Planing mills, sash and door factories, etc.	727	49,413,163	995	210	2,055,246
18	Printing and bookbinding	812	32,695,864	1,327	455	3,586,372
19	Printing and publishing	701	50,858,011	4,135	1,671	9,163,128
20	Pulp and paper	115	501,184,714	2,600	499	7,492,040
21	Roofing paper, wallboard, etc.	10	4,227,392	88	35	333,159
22	Saw mills	2,780	175,186,704	1,680	254	3,889,747
23	Sporting goods	19	1,838,758	33	20	70,740
24	Stationery and envelopes	29	4,414,027	200	91	540,084
25	Stereotyping and electrotyping	22	1,024,354	70	21	160,494
26	Wall paper	4	4,063,852	115	20	421,391
27	Woodenware	8	634,854	10	1	25,270
28	Wood-turning	26	1,500,818	34	10	69,125
29	All other industries	9	3,506,317	18	3	38,156
	GROUP 5.—IRON AND ITS PRODUCTS.					
	Total	**1,142**	**597,982,098**	**10,405**	**2,710**	**26,346,010**
1	Agricultural implements	69	78,947,274	1,220	308	2,548,069
2	Automobiles	11	82,791,968	1,233	422	3,913,865
3	Automobile supplies	77	10,501,725	289	80	751,264
4	Bicycles and motorcycles	5	2,576,222	26	13	66,772

Materials and Value of Products of Canadian Manufacturing Industries, 1926—
tinued.

Wage-Earners.			Power installed.	Cost of Fuel used.	Cost of Materials.	Value of Products.		No.
Male.	Female.	Wages.				Net.	Gross.	
No.	No.	$	H.P.	$	$	$	$	
256	319	459,041	167	6,539	1,036,668	1,185,038	2,221,706	14
3,509	97	3,542,959	13,616	422,674	18,869,383	8,878,222	27,747,605	15
190	20	249,590	339	11,988	1,449,120	681,486	2,130,606	16
7,160	684	8,639,490	32,045	944,570	139,200,096	27,926,995	167,127,091	17
556	96	612,933	768	15,240	1,222,150	1,310,207	2,532,357	18
36,154	**56,306**	**72,706,435**	**153,295**	**3,540,333**	**202,832,383**	**163,502,261**	**366,334,644**	
173	159	309,974	212	8,546	1,325,702	906,738	2,232,440	1
282	595	672,902	975	21,561	12,277,373	1,794,726	14,072,099	2
133	112	196,670	610	14,017	1,218,331	1,185,920	2,404,251	3
483	210	569,548	3,026	77,817	1,515,052	1,637,748	3,152,800	4
4,523	5,266	9,878,835	1,802	102,235	21,944,919	19,839,212	41,784,131	5
3,379	9,052	10,942,176	3,319	55,383	28,760,191	21,898,128	50,658,319	6
1,051	346	1,338,033	7,792	49,425	7,566,817	3,007,865	10,574,682	7
69	950	625,426	302	9,241	2,241,554	1,807,372	4,048,926	8
162	74	195,343	1,106	8,214	1,830,029	560,169	2,390,198	9
59	222	197,409	263	9,534	985,746	538,360	1,524,106	10
174	499	515,792	1,842	20,201	2,360,350	2,177,867	4,538,217	11
10,557	9,195	13,860,432	75,736	989,936	44,265,529	32,008,728	76,274,257	12
3,356	4,963	6,999,925	11,871	878,085	2,104,176	15,538,092	17,642,268	13
119	15	55,207	421	1,666	58,523	117,804	176,327	14
989	6,516	4,848,699	2,623	72,763	16,244,847	10,149,670	26,394,517	15
1,390	2,283	3,047,868	1,317	65,471	6,770,526	6,900,600	13,671,126	16
4,544	10,910	11,255,235	16,315	519,382	29,212,849	24,462,910	53,675,759	17
72	133	130,725	573	14,442	317,694	198,241	515,935	18
162	128	240,846	621	22,377	2,062,996	628,533	2,691,529	19
90	104	198,411	95	9,886	606,680	550,502	1,157,182	20
781	1,450	1,627,192	3,283	102,676	3,472,965	5,034,188	8,507,153	21
2,285	2,076	3,297,545	11,661	320,242	8,680,304	6,822,779	15,503,083	22
668	325	719,138	4,428	71,834	2,947,112	2,791,350	5,738,462	23
653	723	983,104	3,102	95,399	4,062,118	2,944,759	7,006,877	24
106,365	**9,860**	**126,050,940**	**1,552,885**	**14,876,842**	**261,001,976**	**339,062,685**	**600,064,661**	
9	1	7,983	40	584	15,757	29,602	45,359	1
50	5	42,006	37	1,173	64,629	146,522	211,151	2
537	4	600,745	1,037	8,975	437,059	1,139,217	1,576,276	3
1,521	2,238	2,893,146	4,047	85,756	7,646,800	7,882,082	15,528,882	4
3,026	260	2,632,363	14,390	46,160	4,691,008	5,072,352	9,763,360	5
1,827	15	1,944,949	4,369	113,791	2,976,142	3,893,927	6,870,069	6
192	3	198,308	1,382	15,772	584,450	515,750	1,100,200	7
147	40	90,547	400	60	50,518	129,097	179,615	8
474	94	543,893	1,259	21,744	1,108,988	1,357,129	2,466,117	9
483	1	439,288	2,024	16,333	1,702,968	870,728	2,573,696	10
82	14	59,427	611	2,394	78,337	150,413	228,750	11
8,397	412	8,454,646	18,083	365,915	11,364,955	19,928,487	31,293,442	12
247	61	269,331	1,547	11,016	208,532	553,290	761,822	13
2,523	1,065	4,650,924	2,745	57,877	4,933,456	10,165,078	15,098,534	14
691	42	665,218	1,915	18,656	1,372,357	2,338,496	3,710,853	15
370	148	518,326	26,992	26,410	2,005,279	2,424,140	4,429,419	16
9,290	123	9,569,259	48,033	202,283	22,787,229	20,639,174	43,426,403	17
6,052	2,115	9,437,434	41,602	148,325	10,446,235	22,090,154	32,536,389	18
7,547	1,358	12,152,218	17,153	319,444	13,757,474	43,284,749	57,042,223	19
27,280	900	36,683,462	1,059,358	12,683,020	85,365,465	130,004,809	215,370,274	20
296	5	346,843	983	80,879	2,702,658	2,071,870	4,774,528	21
33,075	69	31,035,644	299,075	499,085	78,921,416	56,261,176	135,182,592	22
288	85	324,483	834	9,187	797,777	636,560	1,434,337	23
375	636	867,880	746	18,404	3,204,067	2,518,776	5,722,843	24
239	3	391,360	611	15,648	164,335	914,332	1,078,667	25
379	107	478,701	931	41,534	1,141,487	1,863,516	3,005,003	26
237	12	200,274	505	1,306	210,480	341,797	552,277	27
423	44	336,203	1,611	4,805	493,661	678,365	1,172,026	28
308	–	216,079	565	60,306	1,768,457	1,161,097	2,929,554	29
87,302	**3,093**	**111,294,055**	**422,356**	**9,308,886**	**258,020,373**	**247,168,476**	**505,188,849**	
8,414	149	10,088,846	20,817	626,419	18,160,336	20,108,878	38,269,214	1
10,047	203	15,736,939	25,939	650,658	89,372,095	44,226,361	133,598,456	2
2,220	181	2,928,757	5,266	183,994	7,730,136	6,184,829	13,914,965	3
406	37	443,664	942	27,159	747,119	706,539	1,453,658	4

6.—Statistics of the Numbers, Capital, Employees, Salaries and Wages, Cost of con-

No.	Groups and Kinds of Industries.	Establishments.	Capital Employed.	Salaried Employees.		
				Male.	Female.	Salaries.
	GROUP 5.—IRON AND ITS PRODUCTS—con.	No.	$	No.	No.	$
5	Boilers, tanks and engines	34	8,880,350	224	51	542,601
6	Castings and forgings	335	91,193,541	1,838	529	4,902,121
7	Hardware and tools	123	32,103,226	558	222	1,548,837
8	Iron and steel products, n.e.s.	67	10,772,202	413	93	1,056,330
9	Machinery	156	59,711,942	1,458	451	3,533,665
10	Railway rolling stock	36	82,024,510	1,519	104	3,256,241
11	Sheet metal products	135	32,484,762	899	268	2,154,172
12	Steel and rolled products, pig iron, ferro-alloys, etc.	33	86,987,454	434	69	1,261,971
13	Wire and wire goods	61	19,006,922	294	100	810,102
	GROUP 6.—NON-FERROUS METAL PRODUCTS.					
	Total	**403**	**202,503,426**	**4,391**	**1,434**	**10,608,057**
1	Aluminium products	12	3,930,336	46	14	116,594
2	Brass and copper products	98	20,764,404	650	157	1,521,160
3	Electrical apparatus and supplies	132	80,323,534	2,636	973	6,276,321
4	Lead, tin and zinc products	25	4,241,731	96	41	257,870
5	Miscellaneous non-ferrous metal products	18	918,420	38	3	101,423
6	Non-ferrous smelting and refining	9	81,779,240	590	45	1,240,936
7	Precious metal products	109	10,545,761	335	201	1,093,753
	GROUP 7.—NON-METALLIC MINERAL PRODUCTS.					
	Total	**1,240**	**261,724,184**	**2,959**	**679**	**6,423,911**
1	Aerated and mineral water	347	10,695,527	381	68	731,092
2	Asbestos and allied products	14	2,773,433	46	11	117,600
3	Cement	12	41,380,000	114	10	272,770
4	Cement products	185	2,857,752	138	12	206,087
5	Clay products, domestic	200	28,152,062	287	42	673,657
6	Clay products from imported clay	12	2,849,558	58	15	206,126
7	Coke	6	24,769,899	34	1	99,590
8	Gas, illuminating and fuel	44	55,573,267	743	293	1,390,861
9	Glass products	52	11,432,823	225	64	535,770
10	Lime	60	5,825,809	77	12	157,950
11	Miscellaneous non-metallic products	31	8,926,857	124	40	310,201
12	Petroleum products	23	57,178,125	448	70	1,106,757
13	Salt	12	2,782,728	41	10	121,014
14	Sand-lime brick	10	1,082,577	19	2	42,330
15	Stone, ornamental and monumental	232	5,443,767	224	29	452,106
	GROUP 8.—CHEMICALS AND ALLIED PRODUCTS.					
	Total	**556**	**133,407,891**	**2,849**	**1,050**	**8,015,625**
1	Acids, alkalis, salts and compressed gases	43	38,389,663	400	93	993,007
2	Coal tar and its products	15	4,147,163	35	7	80,314
3	Explosives, ammunition, fireworks, matches	14	16,857,120	286	59	853,732
4	Fertilizers	12	1,891,054	34	12	74,380
5	Inks, dyes and colours	27	2,729,166	108	36	391,271
6	Medicinal and pharmaceutical preparations	130	17,194,519	493	268	1,513,130
7	Miscellaneous chemical industries	134	9,739,972	427	200	1,148,099
8	Paints, pigments and varnishes	64	22,890,807	637	190	1,757,097
9	Soaps, washing compounds and toilet preparations	108	17,351,378	411	185	1,172,790
10	Wood distillates and extracts	9	2,217,049	11	–	31,805
	GROUP 9.—MISCELLANEOUS INDUSTRIES.					
	Total	**436**	**109,669,565**	**2,153**	**578**	**5,602,544**
1	Advertising and other novelties	7	135,845	7	3	23,805
2	Artificial feathers and flowers	8	292,116	20	18	56,105
3	Bridge building	12	17,236,535	621	72	1,514,718
4	Brooms, brushes and mops	81	3,966,269	177	72	434,541
5	Buttons	13	1,390,717	50	17	148,208
6	Candles and tapers	9	475,747	6	1	18,160
7	Fountain pens	3	1,723,016	34	13	92,776
8	Ice, artificial	27	4,653,742	35	8	78,105
9	Jewel cases and silverware cabinets	5	199,696	6	11	19,487
10	Mattresses and springs	55	6,597,910	175	49	523,228
11	Motion pictures	6	467,314	30	10	69,513

Materials and Value of Products of Canadian Manufacturing Industries, 1926—
tinued.

Wage-Earners.			Power installed.	Cost of Fuel used.	Cost of Materials.	Value of Products.		No.
Male.	Female.	Wages.				Net.	Gross.	
No.	No.	$	H.P.	$	$	$	$	
1,254	3	1,451,121	5,453	90,798	2,576,122	2,767,086	5,343,208	5
16,412	404	19,135,457	49,172	1,623,363	27,250,473	42,985,325	70,235,798	6
4,617	910	5,363,581	15,233	392,401	7,151,242	15,678,453	22,829,695	7
2,064	42	2,465,903	7,185	78,963	4,638,614	6,311,137	10,949,751	8
7,385	254	8,909,945	29,385	358,930	13,455,829	24,924,190	38,380,019	9
20,622	41	27,465,502	73,919	1,467,379	38,053,559	34,652,493	72,706,052	10
5,670	639	6,682,563	11,963	468,631	20,931,052	18,145,982	39,077,034	11
5,634	3	7,792,199	166,526	3,169,997	19,912,723	21,270,842	41,183,565	12
2,557	227	2,829,578	10,556	170,194	8,041,073	9,206,361	17,247,434	13
20,589	**3,681**	**28,593,090**	**228,870**	**4,874,982**	**90,613,004**	**92,888,719**	**183,501,723**	
304	64	437,430	1,389	25,619	801,835	1,115,975	1,917,810	1
3,363	363	4,195,369	16,942	339,600	11,810,686	10,217,950	22,028,636	2
8,944	2,693	12,350,179	39,297	604,083	30,195,935	39,571,373	69,767,308	3
422	50	548,979	1,920	48,399	3,766,648	1,417,448	5,184,096	4
140	41	185,114	153	5,593	344,196	654,316	998,512	5
5,591	–	8,344,002	166,360	3,793,023	39,237,657	33,615,909	72,853,566	6
1,825	470	2,532,017	2,809	58,665	4,456,047	6,295,748	10,751,795	7
21,402	**1,005**	**25,563,038**	**305,265**	**11,978,992**	**82,293,319**	**91,863,604**	**174,156,923**	
1,169	73	1,148,229	2,225	114,184	3,053,477	4,353,027	7,406,504	1
189	24	204,265	2,300	36,008	750,907	779,187	1,530,094	2
2,216	–	2,779,892	66,501	2,675,162	–	13,013,283	13,013,283	3
766	6	572,575	2,105	49,695	880,041	1,664,201	2,544,242	4
4,044	22	3,673,020	23,565	1,826,203	–	10,357,323	10,357,323	5
474	50	577,322	8,405	958,196	520,218	1,519,296	2,039,514	6
580	–	914,162	3,013	539,318	9,744,081	5,517,393	15,261,474	7
2,633	9	3,492,660	6,445	1,017,929	6,226,100	12,038,760	18,264,860	8
2,455	289	2,907,874	700	178,002	4,884,559	6,785,710	11,670,269	9
1,017	–	924,904	3,778	738,918	–	3,781,484	3,781,484	10
919	469	1,316,460	159,825	102,015	3,004,413	5,608,245	8,612,658	11
3,209	26	4,785,642	18,381	3,374,931	51,172,159	20,024,152	71,196,311	12
300	33	361,637	1,473	307,093	–	2,049,545	2,049,545	13
197	–	181,269	902	37,971	197,400	432,272	629,672	14
1,234	4	1,723,117	5,647	23,367	1,859,964	3,939,726	5,799,690	15
7,929	**2,517**	**10,293,752**	**63,635**	**1,810,118**	**60,124,582**	**62,464,944**	**122,589,526**	
1,893	14	2,604,466	39,851	623,641	13,360,268	16,872,054	30,232,322	1
140	1	176,991	344	113,452	1,859,879	1,228,174	3,088,053	2
1,268	496	1,389,723	5,827	182,675	6,827,317	5,327,903	12,155,220	3
175	–	136,047	823	12,377	1,047,641	401,948	1,449,589	4
252	45	337,002	1,058	21,963	1,069,957	1,749,988	2,819,945	5
726	878	1,362,547	1,806	80,459	5,552,699	9,829,776	15,382,475	6
829	363	1,068,553	2,872	119,898	5,513,884	6,337,280	11,851,164	7
1,441	216	1,618,884	5,611	215,910	13,105,367	11,697,870	24,803,237	8
968	504	1,416,670	4,754	264,745	10,959,995	8,112,533	19,072,528	9
237	–	182,889	689	174,998	827,575	907,418	1,734,993	10
13,057	**1,840**	**16,100,798**	**44,148**	**460,840**	**30,307,874**	**39,835,657**	**70,143,531**	
11	43	31,048	15	168	66,746	96,352	163,098	1
17	121	85,379	24	440	144,309	272,734	417,043	2
2,251	–	3,094,670	–	–	8,562,149	7,474,834	16,036,983	3
848	222	797,951	1,629	26,601	1,745,835	2,270,839	4,016,674	4
236	253	310,832	534	11,312	358,979	729,974	1,088,953	5
36	21	47,421	30	4,875	238,826	139,219	378,045	6
88	50	119,109	175	2,830	373,255	710,182	1,083,437	7
233	2	340,299	7,534	12,591	89,825	1,219,954	1,309,779	8
25	26	46,870	54	295	48,168	111,265	159,433	9
1,007	179	1,276,314	3,275	50,244	4,178,874	3,960,696	8,139,570	10
39	8	55,348	19	1,650	144,633	129,132	273,765	11

6.—Statistics of the Numbers, Capital, Employees, Salaries and Wages, Cost of con-

No.	Groups and Kinds of Industries.	Establishments.	Capital Employed.	Salaried Employees.		
				Male.	Female.	Salaries.
	GROUP 9.—MISCELLANEOUS INDUSTRIES—concluded.	No.	$	No.	No.	$
12	Musical instruments and materials	45	13,653,107	218	99	661,487
13	Refrigerators	9	780,923	22	8	50,148
14	Regalias and society emblems	11	208,730	11	6	29,050
15	Scientific and professional equipment	21	14,879,830	157	80	491,788
16	Shipbuilding and repairs	41	40,270,657	433	55	1,019,051
17	Stamps and stencils	29	564,714	53	19	98,943
18	Statuary, art goods and church supplies	22	502,599	24	12	56,196
19	Store and display fixtures	3	249,776	5	4	23,356
20	Toys and games	13	303,977	18	7	40,078
21	Typewriter supplies	4	492,567	25	9	92,371
22	Umbrellas and parasols	9	484,592	19	5	48,430
23	All other industries	3	139,191	17	–	13,000
	GROUP 10–CENTRAL ELECTRIC STATIONS. **Total.**	**1,057**	**756,220,066**	**4,854**	**950**	**9,126,278**

Continued from page 418.

many water powers are situated near tidal waters, there is an opportunity in this country for the expansion and establishment of new chemical industries. Electric refining, at first applied to copper only, is now being extended to all the metals, and electric current is also employed in their extraction from the ores. The production of aluminium, of cyanamid, of new refractory materials and of graphite have already created large industries. The fixation of nitrogen with its many subsidiary industries, such as the manufacture of nitric acid, ammonium nitrate and explosives, the reduction of magnesium and the production of innumerable chemical compounds are now also under commercial development. The development of cheap electrical power has contributed to the advance of industries using electrothermic reactions, the intense heat which it is possible to develop by electrical means being an especially advantageous factor. The manufacture of chemicals during the war period represented enormous figures, and even in 1926 the output reached a total value of $122,589,526. The products include commodities of such fundamental importance as fertilizers, calcium carbide, cyanamid, soap, paints, varnishes and wood distillates.

Central Electric Stations.—Beginning with 1926, central electric stations have been taken out of group 9—Miscellaneous Industries—and shown as a separate group. The purpose of the separation is to facilitate the presentation of the statistics of the power installed in manufacturing establishments. Practically all other industries produce either wholly finished goods or products which are used as materials for further processes of manufacture. The product of the central electric station industry is not a material in the same sense, but is electrical energy which supplies the power for many of the manufacturing processes, as well as for mining enterprises, electric railways and the various lighting and domestic services. Included in the establishments reported as central electric stations, in addition to the plants where power is generated from water, steam or some other primary source, are numerous distributing plants which buy power at high voltage from the generating establishments and transform and distribute it to local consumers. In such cases, where the distributing stations are separate organizations from the generating system, there is therefore a duplication in the gross revenue reported from the sale of power. The economic function performed by the distributing station is similar

Materials and Value of Products of Canadian Manufacturing Industries, 1926—cluded.

Wage-Earners.			Power installed.	Cost of Fuel used.	Cost of Materials.	Value of Products.		No.
Male.	Female.	Wages.				Net.	Gross.	
No.	No.	$	H.P.	$	$	$	$	
2,650	218	3,090,212	4,719	127,812	4,510,560	6,362,733	10,873,293	12
242	2	229,118	727	2,488	334,121	659,080	993,201	13
20	46	51,721	21	838	101,703	146,351	248,054	14
521	331	866,913	1,590	46,467	3,772,298	4,804,292	8,576,590	15
4,310	6	4,881,739	23,155	154,411	4,148,310	8,817,323	12,965,633	16
152	12	191,460	116	3,260	83,029	421,707	504,736	17
120	115	226,110	99	4,849	296,239	446,334	742,573	18
79	11	80,294	78	1,488	135,717	154,346	290,063	19
72	47	84,539	103	2,419	242,728	235,989	478,717	20
35	15	61,914	141	4,101	235,885	278,882	514,767	21
39	108	103,494	39	259	451,110	321,901	773,011	22
26	4	28,043	71	1,442	44,575	71,538	116,113	23
7,602	–	**10,816,722**	**3,946,188**	**2,137,382**	**26,534,207**	**88,933,733**	**115,467,940**	

to that of a manufacturing industry which transforms materials to meet the requirements of the consumer. Therefore the cost of power purchased by distributing stations is regarded as a cost of material, and a figure of net revenue is given from which all duplications are eliminated. This treatment has been applied to the figures for 1926, and introduces a slight element of incomparability with figures for previous years.

The principal statistics of each of the manufacturing industries of Canada during 1926 are presented in Table **6.**

Subsection 2.—Manufactures classified by the Purpose of the Products.

Production of Manufactured Goods according to the Purpose Classification.—In addition to the classification according to the chief component material of the products, used by the industrial census in detailed presentation, a parallel classification, based on the chief purpose of the products, was applied for the first time to the census returns of 1922 and is presented for the years 1922 to 1925 in summary form and for 1926 in more detail in Table **7.**

During the period covered by the table, the gross production of the food industries dropped from 27·5 p.c. of the total of all industries in 1922 to 24·1 p.c. in 1926. On the other hand the gross production of the group "vehicles and vessels", which includes automobiles, rose from 6·3 p.c. of the total for 1922 to 9·2 p.c. in 1926. Producers' materials also rose from 26 p.c. to 28·8 p.c. The percentage of the clothing industries remained about stationary, being 9·4 p.c. in 1926 as compared with 9·7 p.c. in 1922.

In analysing the relative standing of the two purpose groups which are perhaps of greatest interest, it is noted that the gross production of the food industries in 1926 was 24 p.c. of the output of Canadian manufacturing concerns, as compared with an output of 9·4 p.c. for the clothing industries. The greater production of the food group was in part due to the higher cost of raw materials, the value added by manufacturing being 13·5 p.c. of the total for all industries in the case of the food group and 9·8 p.c. for the clothing group. The clothing industries gave employment to approximately 4,000 more employees than the food industries.

7.—Principal Statistics of the Manufacturing Industries of Canada, classified according to the Purpose of the Principal Product, by Main Groups for 1922-25[1] and in detail for 1926.

(All establishments irrespective of the number of employees.)

Purpose Headings.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1922.	No.	$	No.	$	$	$	$
Total	**22,184**	**3,125,772,761**	**462,573**	**497,113,554**	**1,280,527,079**	**1,159,316,687**	**2,439,843,766**
Food	8,245	341,662,489	66,444	67,306,446	490,731,438	181,434,270	672,165,708
Drink and tobacco	496	104,047,461	13,402	13,777,986	33,027,203	66,502,616	99,529,819
Clothing	1,279	175,076,687	70,931	65,595,519	118,749,053	117,804,140	236,553,193
Personal utilities	936	56,060,262	16,904	17,080,049	21,879,031	35,379,445	57,258,476
House furnishings	600	75,168,053	18,032	19,861,883	24,956,960	38,004,090	62,961,050
Books and stationery	1,557	82,240,691	28,103	36,920,804	27,190,071	71,928,898	99,118,969
Vehicles and vessels	1,116	158,708,055	26,865	33,488,604	86,057,295	67,020,630	153,077,925
Producers' materials	5,285	1,011,268,819	135,845	139,533,410	316,400,400	319,818,227	636,218,627
Industrial equipment	2,640	1,116,579,810	85,178	102,487,465	158,571,274	259,472,307	418,043,581
Miscellaneous	30	4,960,434	869	1,061,388	2,964,354	1,952,064	4,916,418
1923.							
Total	**22,642**	**3,380,322,950**	**525,267**	**571,470,628**	**1,470,140,139**	**1,311,025,375**	**2,781,165,514**
Food	8,227	345,764,285	77,293	69,336,584	495,485,972	182,097,169	677,583,141
Drink and tobacco	520	109,441,567	14,081	14,471,362	32,859,736	68,500,186	101,359,932
Clothing	2,032	191,932,116	83,124	76,858,924	131,566,228	137,373,130	268,939,358
Personal utilities	358	46,847,531	10,301	11,934,908	21,578,596	24,683,219	46,261,815
House furnishings	585	64,280,384	16,105	17,515,203	23,195,716	33,963,681	57,159,397
Books and stationery	1,536	91,136,337	29,071	38,739,470	29,761,991	73,093,813	102,855,804
Vehicles and vessels	1,040	214,335,369	37,748	50,041,177	140,518,004	86,573,861	227,091,865
Producers' materials	5,859	1,194,469,979	171,513	189,540,284	408,382,495	436,047,291	844,429,786
Industrial equipment	2,332	1,093,181,458	81,698	98,500,993	171,172,490	256,679,961	427,852,451
Miscellaneous	153	28,933,924	4,333	4,531,123	15,618,901	12,013,064	27,631,965
1924.							
Total	**22,178**	**3,538,813,460**	**508,503**	**559,884,045**	**1,438,409,681**	**1,256,643,901**	**2,695,053,582**
Food	8,036	364,420,646	74,721	73,119,482	515,708,299	187,005,602	702,713,901
Drink and tobacco	518	124,000,298	14,702	15,748,590	39,159,283	72,718,494	111,877,777
Clothing	1,956	197,041,969	81,729	75,380,919	130,130,048	130,813,958	260,944,006
Personal utilities	341	48,367,616	9,547	11,057,386	20,304,177	21,511,207	41,815,384
House furnishings	587	64,787,015	15,820	17,142,226	22,448,984	32,495,853	54,944,837
Books and stationery	1,690	100,017,954	29,486	40,212,100	32,360,935	74,911,094	107,272,029
Vehicles and vessels	980	205,551,891	34,149	44,977,607	117,515,075	77,888,209	195,403,284
Producers' materials	5,716	1,251,962,266	163,523	176,646,967	384,533,201	383,226,055	767,759,256
Industrial equipment	2,204	1,149,628,422	80,406	100,883,940	160,470,513	264,765,817	425,236,330
Miscellaneous	150	33,035,383	4,420	4,714,828	15,779,166	11,307,612	27,086,778
1925.							
Total	**22,331**	**3,808,309,981**	**544,225**	**596,015,171**	**1,587,665,408**	**1,360,879,907**	**2,948,545,315**
Food	8,264	373,825,362	84,596	74,946,850	579,235,628	194,189,294	773,424,922
Drink and tobacco	543	132,329,719	14,985	16,184,956	45,204,177	72,247,726	117,451,903
Clothing	1,820	203,546,060	84,197	77,458,211	141,218,864	134,493,015	275,711,909
Personal utilities	369	48,340,883	9,675	11,370,442	21,861,904	22,187,650	44,049,554
House furnishings	548	63,734,869	15,468	16,475,111	24,101,107	33,036,414	57,137,521
Books and stationery	1,644	103,942,573	30,499	40,928,979	33,184,517	76,681,341	109,865,858
Vehicles and vessels	944	260,962,556	46,700	61,847,302	139,327,253	103,706,994	243,034,247
Producers' materials	5,723	1,349,435,816	170,860	187,777,736	418,569,586	435,004,736	853,574,322
Industrial equipment	2,319	1,242,146,247	82,955	104,411,931	170,162,687	277,016,343	447,179,030
Miscellaneous	157	30,045,896	4,290	4,613,653	14,799,685	12,316,364	27,116,049

[1] For details for the years 1922-1925 see previous editions of the Canada Year Book as follows:—1924, 393; 1925, p. 410; 1926, p. 396; 1927-28, p. 426.

7.—Principal Statistics of the Manufacturing Industries of Canada, classified according to the Purpose of the Principal Product, by Main Groups for 1922-25 and in detail for 1926—concluded.

(All establishments irrespective of the number of employees.)

Purpose Headings.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1926.	No.	$	No.	$	$	$	$
Total	**22,708**	**3,981,569,590**	**581,539**	**653,859,933**	**1,755,158,399**	**1,492,645,039**	**3,247,803,438**
Food	**8,259**	**394,159,943**	**87,343**	**78,143,619**	**581,403,701**	**201,819,393**	**783,223,094**
Breadstuffs	3,848	145,076,693	32,353	33,430,240	225,239,526	84,120,542	309,360,068
Fish	831	28,868,071	17,408	5,622,837	22,034,129	14,156,635	36,190,764
Fruits and vegetables	278	35,611,948	7,988	4,113,994	19,984,265	14,040,934	34,025,199
Meats	108	57,201,161	10,931	14,081,131	140,649,216	28,608,481	169,257,697
Milk products	3,047	47,091,589	12,069	12,398,490	101,402,837	31,950,239	133,353,076
Oils and fats	6	754,214	111	137,880	329,303	205,817	535,120
Sugar industries	22	50,193,533	3,015	4,071,404	49,442,881	15,689,392	65,132,273
Infusions	54	13,517,245	1,623	2,020,409	14,654,818	4,750,542	19,405,360
Miscellaneous	65	15,845,489	1,845	2,267,234	7,666,726	8,296,811	15,963,537
Drink and tobacco	**574**	**137,139,189**	**15,341**	**16,817,622**	**45,115,122**	**85,780,145**	**130,895,267**
Beverages, alcoholic	78	80,315,948	4,991	7,020,691	18,124,707	37,695,159	55,819,866
Beverages, non-alcoholic	374	14,373,985	1,895	2,174,141	4,403,264	5,488,376	9,891,640
Tobacco	122	42,449,256	8,455	7,622,790	22,587,151	42,596,610	65,183,761
Clothing	**1,878**	**211,149,085**	**91,215**	**85,361,018**	**158,935,630**	**147,616,042**	**306,551,672**
Boots and shoes	195	45,808,270	21,170	20,168,927	34,305,099	34,720,808	69,025,907
Fur goods	232	13,321,668	3,662	4,328,731	12,459,350	9,316,338	21,775,688
Garments and personal furnishings	728	69,544,763	34,638	33,549,751	69,191,511	53,694,382	122,885,893
Gloves and mitts	41	2,328,940	1,369	1,103,348	2,078,134	1,531,143	3,609,277
Hats and caps	146	7,399,496	4,363	4,066,982	6,914,835	7,173,334	14,088,169
Knitted goods	167	51,609,116	16,474	13,311,796	29,212,849	24,462,910	53,675,759
Waterproofs	13	985,224	241	290,227	606,680	550,502	1,157,182
Miscellaneous textiles, n.e.s	356	20,151,608	9,298	8,541,256	4,167,172	16,166,625	20,333,797
Personal utilities	**384**	**50,497,988**	**10,633**	**12,470,247**	**24,236,592**	**25,487,509**	**49,724,101**
Jewelry and timepieces	114	10,745,457	2,899	3,692,127	4,504,215	6,407,013	10,911,228
Recreational supplies	77	15,795,842	3,755	4,271,539	5,551,065	7,235,282	12,786,347
Personal utilities, n.e.s	193	23,956,689	3,979	4,506,581	14,181,312	11,845,214	26,026,526
House furnishings	**543**	**60,277,954**	**15,684**	**16,858,549**	**22,673,689**	**32,679,963**	**55,353,652**
Books and stationery	**1,716**	**108,582,186**	**31,500**	**43,781,918**	**34,575,475**	**81,543,751**	**116,119,226**
Vehicles and vessels	**917**	**271,239,055**	**50,731**	**70,315,573**	**178,558,815**	**119,505,351**	**298,064,166**
Producers' materials	**5,807**	**1,404,509,475**	**182,599**	**206,672,939**	**453,319,993**	**482,446,753**	**935,766,746**
Farm materials	12	1,891,054	221	210,427	1,047,641	401,948	1,449,589
Manufacturers' materials	1,028	1,002,194,148	107,008	127,124,606	292,859,036	325,859,698	618,718,734
Building materials	4,182	328,209,481	58,489	62,800,640	128,132,271	123,271,773	251,404,044
General materials	585	72,214,792	16,881	16,537,266	31,281,045	32,913,334	64,194,379
Industrial equipment	**2,457**	**1,313,175,892**	**91,956**	**118,162,492**	**240,231,533**	**302,683,501**	**542,915,034**
Farming equipment	75	78,979,401	10,101	12,644,898	18,176,093	20,138,480	38,314,573
Manufacturing equipment	169	60,757,882	9,911	12,806,605	13,664,361	25,477,480	39,141,841
Trading equipment	70	6,096,639	761	1,021,595	611,202	2,171,241	2,782,443
Service equipment	215	36,035,485	4,443	5,314,628	10,874,857	16,566,663	27,441,520
Light, heat and power equipment	1,306	984,384,875	38,444	52,650,393	127,237,230	169,320,889	296,558,119
General equipment	622	146,921,610	28,296	33,724,373	69,667,790	69,008,748	138,676,538
Miscellaneous	**173**	**30,838,823**	**4,537**	**5,266,956**	**16,107,849**	**13,082,631**	**29,190,480**

Subsection 3.—Manufactures classified by Origin of the Materials.

Classification of Manufacturing Production according to the Origin of the Materials Worked Upon.—The principal statistics of the manufactures of Canada, classified upon the basis of "origin", are presented in Table 8 for the years 1924 to 1926. By this means Canadian manufacturing production may be analysed from a new angle, one by means of which interesting comparisons may be made with the external trade classification according to origin.

The manufacturing statistics for 1924 were the first to be analysed upon the origin basis. While the period available for review only covers, therefore, the short space of the three years 1924 to 1926, interesting changes have taken place in the relative importance of the industries based on materials from the different origins. Since the purpose of such a comparison is to discover the relative importance of the manufactures developed to work upon materials from the different origins, the figures of net value of products or the value added to the raw materials by the manufacturing processes will give a more accurate measure of the importance of the industrial groups than the figures of gross value of products. The values added by the manufacture of materials of farm origin, while increasing in amount, have dropped from 30·7 p.c. of the total for all industries in 1924 to 28·5 p.c. in 1926. Similarly, industries of the forest origin group have decreased from 23·8 p.c. in 1924 to 22·6 p.c. in 1926. The values added by industries of the mineral origin group on the other hand have increased from 27·9 p.c. of the total for all industries in 1924 to 33·0 p.c. in 1926. This rapid increase in the relative importance of the industries of the mineral origin group is probably due to a number of influences. The expansion of the motor vehicle industry, increasing activity in construction which absorbs large quantities of steel, cement and various other manufactured mineral products, and the development of metallurgical plants in Canada are some factors in the growing importance of the mineral group of industries. Another factor in this trend is the growing appreciation and development of the wealth of the mineral resources of Canada. Not only do the various mining activities make the raw materials for mineral industries more readily available, but those activities also require large quantities of machinery, electrical apparatus and other finished products of mineral origin.

In the year 1926, the industries of the mineral origin group exceeded those of any other group in the net value of products with 33·0 p.c. of the total, as compared with 28·5 p.c. for the farm and 22·6 p.c. for the forest origin groups. These three principal groups stood in the same order of importance with regard to employees engaged and salaries and wages paid. In the matter of capital invested the mineral group also leads with 30·2 p.c. of the total, followed by the forest group with 23·3 p.c., the farm group with 20·7 p.c. and central electric stations with 19·0 p.c.

8.—Principal Statistics of the Manufacturing Industries of Canada, classified according to the Origin of the Material used, 1924-1926.

(All establishments irrespective of the number of employees.)

Origins.	Establishments	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
1924.	No.	$	No.	$	$	$	$
Total	**22,178**	**3,538,813,460**	**508,503**	**559,884,045**	**1,438,409,681**	**1,256,643,901**	**2,695,053,582**
Farm origin							
(a) From field crops	4,595	525,717,571	89,436	87,789,237	433,443,376	258,069,883	691,513,259
Canadian origin	4,311	299,158,049	51,462	53,793,131	270,753,367	169,716,464	440,469,831
Foreign origin	284	226,559,522	37,974	33,996,106	162,690,009	88,353,419	251,043,428
(b) From animal husbandry	4,086	253,858,982	64,671	66,696,501	285,502,644	127,504,777	413,007,421
Canadian origin	4,068	247,073,900	63,052	65,424,526	282,604,516	125,161,890	407,766,406
Foreign origin	18	6,785,082	1,619	1,271,975	2,898,128	2,342,887	5,241,015
(c) **Total farm origin**	**8,681**	**779,576,553**	**154,107**	**154,485,738**	**718,946,020**	**385,574,660**	**1,104,520,680**
Canadian origin	8,379	546,231,949	114,514	119,217,657	553,357,883	294,878,354	848,236,237
Foreign origin	302	233,344,604	39,593	35,268,081	165,588,137	90,696,306	256,284,443
Wild life origin	226	10,837,249	2,944	3,194,213	7,506,169	5,880,097	13,386,266
Marine origin	836	20,304,785	11,157	3,344,348	16,089,332	10,548,630	26,637,962
Forest origin	6,873	876,149,932	126,907	147,719,245	245,183,429	299,099,168	544,282,597
Mineral origin	2,806	1,010,517,944	136,837	171,068,497	349,800,585	350,201,512	700,002,097
Mixed origin	1,805	212,861,904	63,723	62,125,420	100,884,146	110,170,066	211,054,212
Central electric stations	951	628,565,093	12,828	17,946,584	–	95,169,768	95,169,768
1925.							
Total	**22,331**	**3,808,309,981**	**544,225**	**596,015,171**	**1,587,665,408**	**1,360,879,907**	**2,948,545,315**
Farm origin—							
(a) From field crops	4,724	550,930,521	97,097	91,507,352	475,475,138	265,271,859	740,746,997
Canadian origin	4,459	310,364,866	54,938	52,931,797	296,599,421	169,145,736	465,745,157
Foreign origin	265	240,565,655	42,159	38,575,555	178,875,717	96,126,123	275,001,840
(b) From animal husbandry	4,123	252,880,383	64,720	66,635,408	329,853,432	130,638,516	460,491,948
Canadian origin	4,112	243,656,159	62,993	65,270,551	326,492,397	128,516,188	455,008,585
Foreign origin	11	9,224,224	1,727	1,364,857	3,361,035	2,122,328	5,483,363
(c) **Total farm origin**	**8,847**	**803,810,904**	**161,817**	**158,142,760**	**805,328,570**	**395,910,375**	**1,201,238,945**
Canadian origin	8,571	554,021,025	117,931	118,202,348	623,091,818	297,661,924	920,753,742
Foreign origin	276	249,789,879	43,886	39,940,412	182,236,752	98,248,451	280,485,203
Wild life origin	228	11,714,850	3,028	3,408,045	9,408,529	6,466,341	15,874,870
Marine origin	846	21,139,985	16,272	4,971,167	18,680,686	11,700,306	30,380,992
Forest origin	6,617	904,101,837	127,189	147,622,749	245,681,698	309,098,833	554,780,531
Mineral origin	3,098	1,119,830,868	155,781	200,158,857	400,883,859	423,960,965	824,844,824
Mixed origin	1,688	220,990,450	66,875	62,955,686	107,682,066	111,155,205	218,837,271
Central electric stations	1,007	726,721,087	13,263	18,755,907	–	102,587,882	102,587,882
1926.							
Total	**22,708**	**3,981,569,590**	**581,539**	**653,850,933**	**1,755,158,399**	**1,492,645,039**	**3,247,803,438**
Farm origin—							
(a) From field crops	4,697	565,932,312	99,200	95,403,666	486,522,508	286,500,720	773,023,228
Canadian origin	4,434	323,033,863	56,017	54,719,806	299,452,868	187,256,154	486,709,022
Foreign origin	263	242,898,449	43,183	40,683,860	187,069,640	99,244,566	286,314,206
(b) From animal husbandry	4,149	258,779,323	68,362	71,675,146	334,243,258	138,517,721	475,760,979
Canadian origin	4,137	248,759,804	65,939	69,690,146	333,770,293	133,483,533	467,253,826
Foreign origin	12	10,019,519	2,423	1,985,000	3,472,965	5,034,188	8,507,153
(c) **Total farm origin**	**8,846**	**824,711,635**	**167,562**	**167,078,812**	**823,765,766**	**425,018,441**	**1,248,784,207**
Canadian origin	8,571	571,793,667	121,956	124,409,952	633,223,161	320,739,687	953,962,848
Foreign origin	275	252,917,968	45,606	42,668,860	190,542,605	104,278,754	294,821,359
Wild life origin	232	13,321,668	3,662	4,328,731	12,459,350	9,316,338	21,775,688
Marine origin	831	28,868,071	17,408	5,622,837	22,034,129	14,156,635	36,190,764
Forest origin	6,710	926,726,166	133,428	159,969,652	260,039,864	337,511,793	597,551,657
Mineral origin	3,284	1,200,704,022	173,515	226,802,705	489,898,292	492,204,727	982,103,019
Mixed origin	1,784	231,017,962	72,558	70,105,196	120,426,791	125,503,372	245,930,163
Central electric stations	1,057	756,220,066	13,406	19,943,000	26,534,207	88,933,733	115,467,940

Subsection 4.—The Forty Leading Manufacturing Industries.

The Forty Leading Industries in 1926.—The seven foremost industries during 1926 were pulp and paper-making, the milling of grain, meat-packing, sawmilling, the manufacture of automobiles, the manufacture of butter and cheese and the generation and distribution of electric light and power. Each of these industries in 1926 produced goods with a gross value of more than $100,000,000, while the gross value of the products of the leading industry—pulp and paper—amounted to more than $215,000,000. On the basis of gross production values, the first four of the above industries have, with slight changes in the order of their rank, been the four chief industries since 1920. The automobile industry has increased in relative importance in recent years, rising from eighth place in 1921 to fifth in 1926, while the manufacture of butter and cheese has dropped from fifth to sixth place.

Electric light and power plants have a greater invested capital than any other industry, with pulp and paper mills and sawmills next in order.

It is interesting to note that of the ten leading industries, seven, including the four leading manufactures, the manufacture of butter and cheese, the production of electric light and power, and non-ferrous metal smelting, are directly dependent upon Canadian natural resources, while in the manufacture of automobiles, rubber and cotton goods the materials worked upon are very largely imported in a raw or semi-finished state. The manufacture of rubber goods, principally vehicle tires, has risen from 29th place in 1921 to 8th in 1925 and 1926. Other interesting comparisons may be made between the various industries, with regard to the relations between capital invested, the number of employees, salaries and wages paid, the cost of materials and value of gross production, as shown in Table 9.

9.—Principal Statistics of Forty Leading Industries, 1926.

Industries.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
	No.	$	No.	$	$	$	$
Pulp and paper	115	501,184,714	31,279	44,175,502	85,365,465	130,004,809	215,370,274
Flour and grist-mill products	1,291	58,335,813	6,348	7,222,464	163,905,450	25,675,291	189,580,741
Slaughtering and meat-packing	73	55,712,724	10,685	13,757,638	139,200,096	27,926,995	167,127,091
Sawmills	2,780	175,186,704	35,078	34,925,391	78,921,416	56,261,176	135,182,592
Automobiles	11	82,791,968	11,905	19,650,804	89,372,095	44,226,361	133,598,456
Butter and cheese	3,021	39,964,526	11,224	11,406,983	92,200,617	27,992,800	120,193,417
Central electric stations	1,057	756,220,066	13,406	19,943,000	26,534,207	88,933,733	115,467,940
Rubber goods, including footwear	39	62,661,702	13,587	14,708,023	49,902,189	36,605,948	86,508,137
Cotton yarn and cloth	38	83,439,179	20,323	15,229,006	44,265,529	32,008,728	76,274,257
Non-ferrous metal smelting	9	81,779,240	6,226	9,584,938	39,237,657	33,615,909	72,853,566
Railway rolling stock	36	82,024,510	22,286	30,721,743	38,053,559	34,652,493	72,706,052
Petroleum	23	57,178,125	3,753	5,892,399	51,172,159	20,024,152	71,196,311
Castings and forgings	335	91,193,541	19,183	24,037,578	27,250,473	42,985,325	70,235,798
Electrical apparatus and supplies	132	80,323,534	15,246	18,626,500	30,195,935	39,571,373	69,767,308
Sugar refineries	8	49,748,404	2,916	3,968,140	48,848,507	15,422,180	64,270,687
Bread and other bakery products	2,214	37,416,979	13,389	14,732,139	32,928,065	29,991,944	62,920,009
Printing and publishing	701	50,858,011	14,711	21,315,346	13,757,474	43,284,749	57,042,223

9.—Principal Statistics of Forty Leading Industries, 1926—concluded.

Industries.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
	No.	$	No.	$	$	$	$
Hosiery, knit goods and gloves	167	51,609,116	16,474	13,311,796	29,212,849	24,462,910	53,675,759
Clothing, women's factory	385	21,972,236	13,987	13,981,985	28,760,191	21,898,128	50,658,319
Cigars and cigarettes	84	33,395,516	6,334	5,759,432	16,090,776	33,920,624	50,011,400
Biscuits, confectionery and chewing gum	315	42,422,378	11,976	10,755,550	23,644,255	25,534,581	49,178,836
Boots and shoes, leather	186	31,325,331	15,016	14,726,763	24,091,923	22,004,240	46,096,163
Breweries	63	53,893,942	3,976	5,733,569	14,448,510	29,154,450	43,602,960
Planing mills, sash and door factories	727	49,413,163	10,618	11,624,505	22,787,229	20,639,174	43,426,403
Clothing, men's factory	188	25,826,383	11,147	12,498,584	21,944,919	19,839,212	41,784,131
Rolled products, pig-iron, steel products, etc	33	86,987,454	6,140	9,054,170	19,912,723	21,270,842	41,183,565
Sheet metal products	135	32,484,762	7,476	8,836,735	20,931,052	18,145,982	39,077,034
Machinery	156	59,711,942	9,548	12,443,610	13,455,829	24,924,190	38,380,019
Agricultural implements	69	78,947,274	10,091	12,636,915	18,160,336	20,108,878	38,269,214
Fish-curing and packing	831	28,868,071	17,408	5,622,837	22,034,129	14,156,635	36,190,764
Printing and bookbinding	812	32,695,864	9,949	13,023,806	10,446,235	22,090,154	32,536,389
Furniture and upholstering	331	34,070,226	9,800	10,457,420	11,364,955	19,928,487	31,293,442
Acids, alkalies, salts and compressed gases	43	38,389,663	2,400	3,597,473	13,360,268	16,872,054	30,232,322
Leather tanneries	108	29,348,291	3,934	4,299,870	18,869,383	8,878,222	27,747,605
Furnishing goods, men's	139	17,616,262	8,197	6,008,193	16,244,847	10,149,670	26,394,517
Paints and varnishes	64	22,890,807	2,484	3,375,961	13,105,367	11,697,870	24,803,237
Fruit and vegetable canneries	215	28,103,411	6,878	3,079,062	14,036,616	9,193,982	23,230,598
Hardware and tools	123	32,103,226	6,307	6,912,418	7,151,242	15,678,453	22,829,695
Brass and copper products	98	20,764,404	4,533	5,716,529	11,810,686	10,217,950	22,028,636
Soaps, washing compounds and toilet preparations	108	17,351,378	2,068	2,589,460	10,959,995	8,112,533	19,072,528
Total, forty leading industries	**17,263**	**3,216,210,840**	**448,286**	**505,944,237**	**1,453,935,208**	**1,158,963,187**	**2,611,998,395**
Grand Total, all industries	**22,708**	**3,981,569,590**	**581,539**	**653,850,933**	**1,755,158,399**	**1,492,645,039**	**3,247,893,438**
Percentage of forty leading industries to all industries	76·02	80·78	77·10	77·36	82·80	77·60	80·42

The Forty Leading Industries in 1927.—The early completion of part of the compilation of the Census of Manufactures for 1927 permits the inclusion before going to press of a table (9A) of the forty leading industries in that year. Pulp and paper and flour milling, the two leading industries, show further progress in this latest year. Significant changes in 1927 are that the electric light and power industry moved up from seventh place in 1926 to fourth in 1927 and the manufacture of electrical apparatus and supplies moved from fourteenth place in 1926 to ninth place in 1927. Gross production in the automobile industry was nearly $5,000,000 less in 1927 than in 1926, owing to the fact that in 1927 production was largely suspended in one of the principal plants in Canada, pending a change of models. Non-ferrous metal smelting, while remaining in tenth position in 1927, showed an increase of more than $5,000,000 in gross value of products over 1926.

9A.—Principal Statistics of Forty Leading Industries, 1927.

Industries.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.	Gross Value of Products.
	No.	$	No.	$	$	$	$
Pulp and paper	114	579,853,552	32,876	45,674,293	84,813,080	134,516,673	219,329,753
Flour and grist-mill products	1,315	62,062,013	6,384	7,372,670	163,712,597	28,028,873	191,741,470
Slaughtering and meat-packing	76	60,612,029	11,048	14,551,250	133,076,361	34,144,531	167,220,892
Central electric stations	1,097	866,825,285	14,708	22,946,315	30,785,270	104,033,297	134,818,567
Sawmills	2,720	169,378,939	44,598	34,421,544	77,438,700	56,181,854	133,620,554
Automobiles	11	88,831,668	11,063	18,862,846	88,451,757	40,248,757	128,700,514
Butter and cheese	2,872	43,375,302	11,126	11,162,645	93,101,006	29,422,876	122,523,882
Rubber goods, including footwear	44	66,266,064	15,065	16,621,543	44,724,502	46,689,228	91,413,730
Electrical apparatus and supplies	130	80,475,999	16,813	20,613,592	32,734,875	45,823,855	78,558,730
Non-ferrous metal smelting	10	85,366,662	7,671	12,120,240	32,516,687	45,479,578	77,996,265
Cotton yarn and cloth	39	84,927,745	21,383	17,146,927	39,297,188	36,521,688	75,818,876
Railway rolling stock	35	81,519,950	21,436	30,269,896	38,518,449	35,948,463	74,466,912
Castings and forgings	328	89,505,687	19,149	24,267,396	26,792,119	42,603,224	69,395,343
Bread and other bakery products	2,443	40,559,259	14,414	16,068,147	35,779,690	32,946,572	68,726,262
Petroleum	23	56,135,564	3,856	6,188,226	53,059,921	11,468,899	64,528,820
Printing and publishing	720	55,831,150	15,028	22,040,170	14,502,065	47,528,831	62,030,896
Sugar refineries	8	50,039,122	2,711	3,839,488	47,138,854	13,363,810	60,502,664
Clothing, women's factory	428	24,259,925	15,597	15,550,496	31,899,654	24,416,410	56,316,064
Cigars and cigarettes	79	34,371,252	6,247	5,876,868	17,350,343	38,450,995	55,801,338
Hosiery, knit goods and gloves	168	56,852,077	17,217	14,177,165	28,269,830	26,952,565	55,222,395
Biscuits, confectionery and chewing gum	294	46,448,311	12,486	11,399,594	25,149,428	27,979,460	53,128,888
Breweries	73	62,358,117	4,662	6,436,720	17,471,299	34,056,725	51,528,024
Planing mills, sash and door factories	771	50,861,269	11,436	12,211,709	26,343,318	21,612,230	47,955,548
Boots and shoes, leather	191	31,921,002	15,433	14,927,844	24,566,423	22,806,126	47,372,549
Rolled products, pig iron, steel products, etc	36	96,295,734	7,396	11,809,198	18,993,940	26,577,324	45,571,264
Machinery	160	62,006,808	9,947	13,094,650	15,277,973	29,324,162	44,602,135
Sheet metal products	144	38,795,028	8,396	10,114,891	22,149,452	21,705,964	43,855,416
Clothing, men's factory	204	24,919,334	11,479	12,675,048	21,335,688	21,950,926	43,286,614
Agricultural implements	65	88,981,203	11,011	13,315,500	19,317,415	23,678,873	42,996,288
Printing and bookbinding	862	35,263,910	11,043	13,982,039	11,589,271	24,237,168	35,826,439
Furniture and upholstering	334	36,682,976	11,038	12,041,421	14,154,730	21,579,088	35,733,818
Leather tanneries	98	32,320,323	4,088	4,498,206	22,347,228	10,142,661	32,489,889
Fish-curing and packing	773	24,454,482	16,697	5,373,951	18,364,846	12,719,763	31,084,609
Acids, alkalies, salts and compressed gases	42	35,312,251	2,285	3,463,061	15,661,786	15,079,060	30,740,846
Furnishing goods, men's	146	19,493,876	8,980	6,579,223	15,673,819	12,421,896	28,095,715
Coffee and spices	61	13,593,564	1,604	2,192,698	20,392,675	5,895,831	26,288,506
Distilleries	17	37,528,954	1,401	1,895,084	6,351,689	19,309,296	25,660,985
Paints and varnishes	62	23,162,090	2,563	3,552,586	12,934,639	12,294,815	25,229,454
Hardware and tools	128	32,523,774	6,659	7,259,617	7,342,625	17,128,031	24,470,656
Brass and copper products	99	22,425,179	4,832	6,065,671	12,546,718	11,507,939	24,054,657
Total, forty leading industries	**17,220**	**3,492,397,429**	**471,826**	**532,659,828**	**1,461,927,910**	**1,266,778,317**	**2,728,706,227**
Grand Total, all industries	**22,936**	**4,337,631,558**	**618,933**	**693,932,228**	**1,789,574,604**	**1,635,923,936**	**3,425,498,540**
Percentage of forty leading industries to all industries	75·08	80·51	76·22	76·77	81·69	77·42	79·66

Section 3.—Provincial Distribution of Manufacturing Production.

Ontario and Quebec are the most important manufacturing provinces of Canada. Their combined production in 1926 amounted to $2,583,234,328, or almost 80 p.c. of the gross value of manufactured products of the Dominion. Of this amount, Ontario contributed $1,677,933,504 and Quebec $905,300,824. The proximity of Ontario to the coal fields of Pennsylvania, the water power resources of the two provinces and their nearness to the larger markets of Canada and the United States, have all contributed to the above result. British Columbia had, in 1926, the third largest gross manufacturing production, $249,619,714, and Manitoba the fourth, $132,718,452. Alberta, New Brunswick and Nova Scotia followed with $83,425,631, $74,122,239 and $73,505,642 respectively, succeeded by Saskatchewan with a production of $47,108,097 and Prince Edward Island with $4,069,335.

Subsection 1.—The Manufactures of the Maritime Provinces, 1926.

Table 10 contains statistics of the ten leading industries of each of the Maritime Provinces for the calendar year 1926. In Prince Edward Island the manufacture of butter and cheese, with a gross production in 1926 of $1,048,728, was the leading industry, followed closely by fish-curing and packing, with a gross production of $945,485. Manufacturing in Nova Scotia and New Brunswick is, of course, to a considerable extent dominated by the steel industry in the former and the forest industries in the latter, although there is a large sugar refinery in each province. Fish-curing and preserving, the manufacture of biscuits and confectionery, electric light and power production and butter and cheese-making are also of considerable relative importance. The sawmilling industry of New Brunswick, with a gross value of products in 1926 of $13,392,477 or over 18 p.c. of the total manufacturing production of the province, provided almost 10 p.c. of the total of the gross production of the industry throughout the Dominion.

10.—Statistics of Ten Leading Industries of each of the Maritime Provinces, 1926.

NOTE.—Other leading industries, statistics of which cannot be given because there are fewer than three establishments in each industry are, in Prince Edward Island:—tobacco and cigars, coffins and caskets, slaughtering and meat-packing and aerated waters; in Nova Scotia:—petroleum and sugar refineries and pulp mills; in New Brunswick:—sugar refineries and planing mills, sash, doors, etc. The statistics for these industries are included in the grand totals.

PRINCE EDWARD ISLAND.

Industries.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	$	No.	$	$	$
Butter and cheese	36	251,993	105	63,098	845,800	1,048,728
Fish-curing and packing	146	260,575	1,564	115,809	653,083	945,485
Flour and grist-mill products	17	71,438	21	10,681	156,085	190,581
Central electric stations	11	648,572	33	32,872	284	158,891
Castings and forgings	3	324,975	63	53,100	56,148	157,700
Printing and publishing	3	116,815	95	62,736	23,844	138,468
Bread and other bakery products	6	59,133	24	15,900	67,062	120,149
Sawmills	40	140,055	24	11,920	54,877	92,502
Printing and bookbinding	4	53,175	20	12,819	10,171	35,863
Harness and saddlery	3	12,422	8	7,137	7,338	18,193
Grand Total, all industries	**299**	**2,850,010**	**2,261**	**690,403**	**2,638,244**	**4,069,335**

10.—Statistics of Ten Leading Industries of each of the Maritime Provinces, 1926—concluded.

NOVA SCOTIA.

Industries.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	$	No.	$	$	$
Rolled iron, steel products, pig iron and ferro-alloys	4	17,246,123	1,225	1,329,832	4,349,533	8,681,441
Fish-curing and packing	243	4,114,654	3,881	1,177,551	5,092,391	7,663,724
Biscuits and confectionery	14	3,570,307	1,264	988,219	1,662,672	3,110,847
Sawmills	328	4,600,317	1,288	699,461	1,687,613	2,993,615
Central electric stations	71	12,382,884	460	547,069	548,874	2,755,045
Butter and cheese	28	816,388	247	245,748	1,933,821	2,498,226
Hosiery, knit goods and gloves	3	2,951,213	495	383,485	881,132	1,799,332
Railway rolling stock	3	6,342,444	266	325,898	1,224,712	1,765,683
Printing and publishing	31	1,560,880	576	685,583	321,978	1,570,022
Castings and forgings	16	2,358,508	511	636,653	483,161	1,477,271
Grand Total, all industries	**1,163**	**118,050,902**	**16,782**	**13,014,707**	**39,686,139**	**73,505,642**

NEW BRUNSWICK.

Sawmills	257	20,773,165	4,100	3,170,645	8,169,341	13,392,477
Pulp and paper	5	17,210,976	1,366	1,617,177	4,047,529	9,176,268
Cotton yarn and cloth	4	5,655,937	1,903	1,400,564	2,035,396	4,460,259
Fish-curing and packing	190	1,527,594	2,414	323,343	1,532,319	2,658,703
Biscuits and confectionery	11	2,271,931	669	509,528	1,474,529	2,474,799
Coffee and spices	4	1,269,386	107	118,228	1,754,893	1,958,154
Central electric stations	43	10,326,920	279	317,809	460,445	1,859,611
Boots and shoes, leather	5	1,025,988	525	460,348	848,547	1,783,352
Butter and cheese	38	662,287	163	161,456	987,480	1,507,716
Castings and forgings	12	1,767,928	525	592,369	372,427	1,238,775
Grand Total, all industries	**910**	**95,661,154**	**17,674**	**14,609,734**	**44,535,406**	**74,122,239**

Subsection 2.—The Manufactures of Quebec, 1926.

The pulp and paper-mills of Quebec, the most important manufacturing unit in the province, produced goods to the gross value of $107,166,651 in the calendar year 1926. This amount exceeded by over $50,000,000 the gross value of the products of the cotton yarn and cloth mills ($56,166,402), which in their turn showed an excess of value of products of over $12,000,000 when compared with establishments engaged in the manufacture of cigars and cigarettes ($43,384,358). These three industries were followed in order of gross value of products by the manufacture of railway rolling stock, the generation of electric light and power, flour and grist-milling, the making of leather boots and shoes and the making of butter and cheese.

The importance of the pulp and paper industry in Quebec is shown by a comparison with the industry throughout the Dominion. The Quebec industry, in addition to supplying nearly 12 p.c. of the total gross value of all products manufactured in the province, furnished nearly 50 p.c. of the products of pulp and paper-mills throughout the country. The gross value of cotton yarn and cloth products from Quebec mills formed almost 74 p.c. of the Dominion total; the gross value of cigars and cigarettes formed 87 p.c. of the same total, the value of railway rolling

stock over 53 p.c. and the value of the boot and shoe products (the seventh industry in order of value of products) over 60 p.c. Thus Quebec is an outstanding manufacturing province rather on account of her great individual industries than because of the diversification of her industrial activities.

11.—Statistics of Forty Leading Industries of the Province of Quebec, 1926.

NOTE.—Industries having less than 3 establishments are:—sugar refineries, aluminium products and bridge-building.

Industries.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	$	No.	$	$	$
Pulp and paper	50	254,360,201	16,021	21,166,869	42,166,220	107,166,651
Cotton yarn and cloth	17	58,548,343	13,444	9,809,361	34,280,232	56,166,402
Cigars and cigarettes	43	28,340,439	5,206	4,703,020	11,846,604	43,384,358
Railway rolling stock	10	38,108,368	10,936	15,618,904	22,328,621	38,943,159
Central electric stations	169	243,968,299	3,129	4,190,470	5,656,700	31,550,700
Flour and grist-mill products	371	10,992,050	1,067	1,143,624	24,835,206	28,513,371
Boots and shoes, leather	109	18,154,348	9,399	9,164,067	14,941,158	27,872,290
Butter and cheese	1,567	8,445,517	2,099	1,556,543	20,983,988	26,444,546
Clothing, men's factory	123	16,503,106	6,911	7,329,782	14,101,451	25,664,154
Sawmills	1,087	31,911,286	6,153	4,633,286	16,739,054	25,194,259
Slaughtering and meat-packing	19	8,393,515	1,746	2,202,970	20,245,043	24,240,070
Electrical apparatus and supplies	19	23,105,967	5,250	6,712,940	9,224,845	20,482,397
Breweries	8	20,787,678	1,513	1,852,315	5,487,294	18,953,387
Clothing, women's factory	172	8,319,437	4,848	4,604,198	10,839,645	18,745,178
Bread and other bakery products	764	11,647,553	4,041	4,165,919	9,356,208	17,567,988
Castings and forgings	72	22,981,626	4,494	5,163,585	6,637,625	16,487,590
Rubber goods, including footwear	10	10,292,321	4,114	3,538,756	6,864,432	15,698,563
Machinery	24	19,583,106	3,851	5,007,252	5,630,167	14,096,608
Petroleum products	5	10,996,613	612	901,445	10,838,717	13,936,396
Tobacco, chewing, smoking and snuff	30	8,508,747	1,859	1,718,369	5,318,441	13,759,130
Printing and publishing	59	12,526,024	3,666	4,728,745	3,615,680	13,745,298
Furnishing goods, men's	64	8,349,045	4,215	2,514,788	7,076,030	11,579,095
Hosiery and knit goods	37	10,055,994	3,391	2,510,925	6,537,177	11,418,966
Biscuits, confectionery and chewing gum	48	8,823,632	3,105	2,430,288	5,794,842	10,660,803
Planing mills, sash and door factories	265	10,741,338	2,728	2,529,847	5,027,942	10,506,558
Paints and varnishes	18	12,536,130	1,057	1,364,081	5,469,589	10,173,789
Explosives, ammunition, fireworks and matches	7	12,595,809	1,770	1,890,585	4,883,726	9,028,359
Fur goods	77	6,616,209	1,435	1,653,959	5,506,731	8,790,420
Sheet metal products	19	7,816,302	1,848	2,005,562	4,316,801	8,083,978
Printing and bookbinding	220	7,879,053	2,678	3,268,086	2,493,235	8,006,029
Hardware and tools	26	10,128,018	1,552	1,515,890	1,800,895	7,767,175
Acids, alkalies, salts and compressed gases	9	8,343,182	607	893,272	1,532,905	6,599,954
Gas, illuminating and fuel	4	7,020,613	1,018	1,271,078	1,987,240	6,345,445
Hats and caps	62	2,710,263	2,043	1,817,684	2,947,098	6,101,634
Rolled iron, steel products, pig iron, ferro-alloys, etc	10	13,189,670	1,670	2,089,629	2,369,853	6,040,683
Shipbuilding and repairs	5	14,861,597	2,361	2,995,855	1,854,346	5,954,488
Dyeing, cleaning and laundry work	76	5,554,471	2,552	2,268,313	743,194	5,130,583
Furniture and upholstering	65	3,830,221	1,837	1,911,519	1,604,328	5,018,433
Wire and wire goods	11	3,779,034	731	833,423	1,575,292	4,951,638
Cement	4	15,442,542	1,094	1,345,222	–	4,535,386
Total forty leading industries	**5,755**	**1,036,747,667**	**148,051**	**157,022,426**	**367,458,555**	**745,305,911**
Grand Total for all industries	**7,164**	**1,216,975,958**	**180,669**	**189,326,145**	**448,584,313**	**905,300,824**
Percentage of forty industries to grand total	80·3	85·2	81·9	82·9	81·9	82·3

Subsection 3.—The Manufactures of Ontario, 1926.

Ontario is the most important manufacturing province of the Dominion. The gross value of its manufactured products in 1926 represented nearly 52 p.c. of those of the whole Dominion, while those of Quebec, the second province in importance in this respect, amounted to about 28 p.c. This premier position in manufacturing has been fairly uniformly maintained by Ontario over a long period, as the following percentages show:—in 1924, 52 p.c.; 1923, 52 p.c.; 1920, 50 p.c.; 1918, 53 p.c.; 1910, 50 p.c.; 1900, 50 p.c.; 1890, 51 p.c. and 1880, 51 p.c. Thus, in spite of the rapid industrial development in recent years in other provinces such as Quebec, British Columbia and Manitoba, Ontario is maintaining a manufacturing production more than equal to that of the remainder of the Dominion.

The automobile manufacturing industry of Ontario in 1926 came first in the value of its products, which amounted to $133,598,456 as compared with $105,437,330 for the flour and grist-milling industry, which held second place. Other important industries in descending order, with the value of their products in 1926, were:—slaughtering and meat-packing, $95,611,311; pulp and paper, $80,960,073; and rubber goods, $70,555,752. As compared with 1925, automobile manufacturing showed a gain of nearly $23,000,000, while flour and grist-mill products increased nearly $1,000,000. Slaughtering and meat-packing showed an increase of over $1,000,000 and pulp and paper manufacturing gained more than $6,000,000 over the figures for 1925.

As an indication of the greater diversification of industry in Ontario as compared with Quebec, the percentage which the 40 leading industries bear to the total manufacturing of the province is higher in nearly every particular in Quebec than in Ontario, especially in the capital employed and the number of establishments and employees. This feature of industrial development in Ontario is more marked if the ten leading industries be taken and comparison made with provinces other than Quebec. Outstanding among the industries in which the province of Ontario is pre-eminent is that of automobile manufacturing, which is carried on in this province alone. Other important industries in which Ontario leads, with the percentage which its production bore to that of the Dominion in 1926, are as follows:—agricultural implements, 95 p.c.; leather tanneries, 81 p.c.; rubber goods, 81 p.c.; furniture and upholstering, 79 p.c.; fruit and vegetable canning, preserving, etc., 66 p.c.; electric apparatus and supplies, 70 p.c.; castings and forgings, 67 p.c.; steel and rolled products, pig iron, etc., 60 p.c.; slaughtering and meat-packing, 57 p.c.; flour and grist-mill products, 56 p.c.

12.—Statistics of the Forty Leading Industries of the Province of Ontario, 1926.

Industries.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	$	No.	$	$	$
Automobiles	11	82,791,968	11,905	19,650,804	89,372,095	133,598,456
Flour and grist-mill products	676	29,008,355	3,180	3,472,875	92,865,617	105,437,330
Slaughtering and meat-packing	24	29,695,800	5,322	7,016,627	79,433,820	95,611,311
Pulp and paper	45	167,788,862	10,312	15,621,863	34,191,363	80,960,073
Rubber goods (including footwear)	28	51,861,615	9,419	11,133,388	42,918,894	70,555,752
Butter and cheese	1,038	19,087,999	6,004	6,001,755	47,309,613	60,933,703
Central electric stations	423	359,452,904	6,306	10,011,436	16,554,178	56,332,508
Electrical apparatus and supplies	98	56,694,868	9,842	11,717,736	20,690,096	48,677,155
Castings and forgings	191	58,902,577	12,480	16,029,118	18,451,784	47,124,409
Hosiery, knit goods and fabric gloves	110	37,065,201	12,035	9,945,445	20,868,920	38,680,311
Agricultural implements	45	76,301,633	9,629	12,102,859	17,397,668	36,556,124
Sawmills	676	50,578,550	7,640	7,504,855	18,280,542	30,875,908
Bread and other bakery products	890	17,156,580	6,347	7,295,259	15,753,267	30,125,253
Clothing, women's factory	187	12,810,560	8,453	8,729,854	16,543,001	29,545,595
Petroleum products	7	20,963,025	1,895	2,954,458	20,253,513	27,841,099
Biscuits, confectionery and chewing gum	161	24,645,729	5,734	5,622,227	12,071,190	27,298,584
Non-ferrous metal smelting	5	32,604,613	2,206	3,292,569	7,834,442	25,731,577
Printing and publishing	294	22,578,855	6,667	9,637,450	6,404,864	25,596,419
Steel and rolled products, pig iron, ferro-alloys, etc	15	55,070,516	2,911	5,166,262	12,810,475	24,914,100
Furniture and upholstering	201	29,117,629	7,557	8,584,590	9,105,382	24,643,280
Leather, tanned, etc	41	24,643,580	3,122	3,516,687	16,189,536	23,598,294
Planing mills, sash and door factories	322	28,580,464	5,250	6,076,915	13,235,700	23,548,069
Sheet metal products	69	19,313,410	4,207	5,076,656	12,338,708	23,249,241
Machinery	116	39,023,995	5,447	7,072,389	7,493,338	23,035,848
Acids, alkalies, salts and compressed gases	22	28,723,053	1,641	2,452,695	11,547,084	22,439,957
Printing and bookbinding	371	17,662,850	4,854	6,482,042	5,294,355	16,821,009
Railway rolling stock	16	22,151,761	4,450	6,153,454	8,292,747	16,810,328
Brass and copper products	64	13,041,726	2,994	3,692,365	9,362,400	15,745,357
Boots and shoes, leather	62	10,934,232	4,734	4,785,952	7,732,634	15,494,319
Fruit and vegetable canning, evaporating and preserving	142	21,801,313	4,213	1,914,367	8,982,885	15,463,710
Clothing, men's factory	53	8,727,629	3,742	4,809,351	7,162,411	14,943,320
Hardware and tools	85	20,586,084	4,505	5,113,729	5,061,172	14,289,078
Cotton yarn and cloth	16	17,270,785	4,577	3,658,457	6,995,855	13,756,133
Woollen cloth	41	17,548,074	3,843	3,395,827	7,301,187	13,314,588
Automobile supplies	47	9,881,521	2,478	3,311,014	7,338,779	12,919,990
Soaps, washing compounds and toilet preparations	55	11,493,954	1,236	1,555,074	7,545,126	12,350,253
Condensed milk	22	6,465,006	764	903,080	8,239,149	11,912,633
Lithographing and engraving	64	11,626,415	3,182	4,751,451	3,525,867	10,918,824
Paints, pigments and varnishes	30	7,723,799	1,034	1,560,718	5,676,702	10,800,077
Boxes and bags, paper	61	10,348,226	2,704	2,753,765	5,425,780	10,787,041
Total forty leading industries	**6,824**	**1,581,725,716**	**214,821**	**260,527,418**	**763,852,139**	**1,343,237,016**
Grand Total, all industries	**9,457**	**1,985,165,921**	**280,353**	**335,164,239**	**924,598,851**	**1,677,933,504**
Percentage of forty industries to grand total	72·16	80·00	76·62	77·74	82·60	80·05

Subsection 4.—The Manufactures of the Prairie Provinces, 1926.

The flour-milling industry is outstanding among the manufactures of the Prairie Provinces. During 1926, as will be seen from Table **13**, the gross value of the products of flour mills was greater in each instance than that of any other industry and amounted to $19,153,102 in Manitoba, $14,360,572 in Saskatchewan and $17,599,462 in Alberta, a combined total of over 19 p.c. of the gross value of

the products of manufactures in these provinces. The second industry in point of gross production is slaughtering and meat-packing, with products valued at $18,015,878 in Manitoba and $15,069,972 in Alberta. Butter and cheese-making showed a gross value of production of $8,424,434 in Manitoba, $7,190,215 in Saskatchewan and $7,817,729 in Alberta.

The importance of these industries, based on the natural resources of the Prairie Provinces as grain-growing and cattle-raising areas, is evident. Attention may also be drawn to the generation of electric light and power in all three provinces and to the refining of petroleum in Alberta.

13.—Statistics of Ten Leading Industries of Manitoba, Saskatchewan and Alberta, 1926.

NOTE.—Other leading industries of Saskatchewan, statistics of which cannot be given because there are fewer than three establishments in each industry, are:—petroleum refining and slaughtering and meat-packing. The statistics for these industries are included in the grand total for the province.

MANITOBA.

Industries.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	$	No.	$	$	$
Flour and grist-mill products..	29	6,122,881	571	677,375	16,026,372	19,153,102
Slaughtering and meat-packing	6	5,654,889	1,263	1,529,882	14,816,729	18,015,878
Railway rolling stock.....	3	8,674,028	4,375	5,688,304	3,917,005	10,286,727
Butter and cheese.....	73	2,789,213	849	1,122,054	5,784,424	8,424,434
Central electric stations.....	38	38,501,673	847	1,320,376	588,464	5,358,630
Bags, cotton and jute.....	4	1,976,888	280	294,838	4,369,957	5,077,484
Breweries.....	8	4,212,976	533	904,749	1,365,775	4,784,805
Printing and publishing.....	65	3,657,503	1,052	1,742,960	995,432	4,782,493
Printing and bookbinding.....	57	4,089,628	1,178	1,662,299	1,473,868	3,882,615
Bread and bakery products...	92	1,795,824	728	745,362	1,571,379	3,174,424
Total, ten leading industries.....	**375**	**77,475,503**	**11,676**	**15,688,199**	**50,909,405**	**82,940,592**
Grand Total, all industries	**797**	**127,445,924**	**21,201**	**26,973,850**	**75,588,993**	**132,718,452**

SASKATCHEWAN.

Flour and grist-mill products..	43	4,360,145	560	807,412	11,653,522	14,360,572
Butter and cheese.....	89	3,390,469	662	812,717	5,243,350	7,190,215
Central electric stations.....	143	9,136,774	436	608,300	14,665	3,085,747
Printing and publishing.....	123	2,842,209	702	1,195,937	629,161	3,041,284
Breweries.....	4	1,686,423	122	192,023	780,286	2,031,411
Bread and bakery products..	85	1,256,063	358	431,720	960,033	1,850,207
Planing mills, sash and door factories.....	14	1,375,029	331	407,828	750,314	1,642,344
Dyeing, cleaning and laundry work.....	14	525,833	255	255,905	70,702	560,171
Sawmills.....	9	533,133	212	165,026	206,986	447,157
Printing and bookbinding.....	17	377,451	116	161,625	106,591	375,904
Total, ten leading industries.....	**541**	**25,483,529**	**3,754**	**5,038,493**	**20,415,610**	**34,585,012**
Grand Total, all industries	**674**	**33,943,060**	**4,904**	**6,397,545**	**29,142,700**	**47,108,097**

ALBERTA.

Flour and grist-mill products..	35	5,675,331	595	802,879	14,776,081	17,599,462
Slaughtering and meat-packing	6	6,818,635	1,332	1,721,551	12,419,994	15,069,972
Petroleum products.....	5	5,993,102	324	531,919	4,738,289	8,374,671
Butter and cheese.....	104	2,969,958	628	788,293	6,028,091	7,817,729
Breweries.....	6	7,079,687	365	563,588	1,375,721	5,086,810
Central electric stations.....	91	15,456,460	643	933,459	366,137	3,818,791
Bread and bakery products..	110	1,551,171	502	508,413	1,333,173	2,816,547
Printing and publishing.....	58	3,169,313	553	957,786	501,321	2,573,898
Sawmills.....	52	1,597,539	558	467,404	770,871	1,577,432
Planing mills, etc.....	15	1,481,814	272	340,483	564,845	1,136,164
Total, ten leading industries.....	**482**	**51,793,010**	**5,772**	**7,615,775**	**42,874,523**	**65,871,476**
Grand Total, all industries	**749**	**72,468,286**	**10,233**	**12,808,554**	**50,192,669**	**83,425,631**

Subsection 5.—The Manufactures of British Columbia, 1926.[1]

British Columbia was in 1926 the third most important manufacturing province in the Dominion, producing goods to a gross value of $249,619,714. Almost 24 p.c. of this production, or $58,725,997, is seen in Table 14 to be that of the sawmilling industry; the predominance of forest products industries in the industrial life of the province is emphasized if to this figure be added $16,797,823, the gross value of products of the pulp and paper industry and $2,774,317, that of the planing mills and sash and door factories. Second in importance among the industries of the province is that of fish-curing and packing, with a gross value of products of $24,103,433, followed by the pulp and paper industry, electric light and power generation and slaughtering and meat-packing.

14.—Statistics of Twenty-five Leading Industries of British Columbia, 1926.[1]

NOTE.—Other leading industries, statistics of which cannot be given because there are fewer than 3 establishments in each industry are:—non-ferrous metal smelting, sugar refining and petroleum products. The statistics for these industries are included in the grand total of all industries in the province.

Industries.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	$	No.	$	$	$
Sawmills	315	62,847,247	14,722	17,847,708	32,124,188	58,725,997
Fish-curing and packing	158	22,253,544	8,436	3,873,942	14,204,381	24,103,433
Pulp and paper	7	55,791,848	3,055	5,309,476	4,441,092	16,797,823
Central electric stations	68	66,345,580	1,273	1,981,209	2,344,460	10,548,017
Slaughtering and meat-packing	5	3,591,045	612	869,679	8,746,100	10,083,111
Sheet metal products	19	2,269,452	690	850,234	3,092,602	4,960,569
Printing and publishing	47	3,491,946	1,109	1,869,422	1,068,094	4,661,596
Fruit and vegetable canning, etc	28	3,684,412	1,461	758,837	2,940,384	4,625,793
Bread and bakery products	162	2,771,430	869	1,087,079	2,429,709	4,583,161
Butter and cheese	39	1,550,702	467	655,319	3,084,050	4,328,120
Breweries	10	5,861,414	286	489,006	1,540,542	4,262,495
Coffee and spices	8	831,359	101	119,848	2,931,491	3,577,837
Planing mills, sash and door factories	40	2,679,323	860	1,017,356	1,218,628	2,774,317
Shipbuilding and repairs	14	4,947,320	946	1,191,751	880,043	2,632,613
Dyeing, cleaning and laundry work	56	1,866,966	1,254	1,196,455	184,435	2,335,372
Biscuits, confectionery and chewing gum	43	1,125,829	471	507,503	988,678	2,184,032
Boxes and packing cases	14	1,816,269	664	696,478	1,007,145	2,068,468
Castings and forgings	24	2,465,156	607	852,306	573,416	1,910,940
Printing and bookbinding	66	1,158,173	500	670,138	578,561	1,709,336
Flour and grist-mill products	4	1,165,690	178	191,168	1,204,613	1,556,136
Paints and varnishes	9	1,232,522	150	158,947	712,178	1,274,450
Gas, illuminating and fuel	5	6,668,905	355	459,607	381,137	1,267,630
Liquors, distilled	3	1,960,979	94	132,917	369,271	1,147,788
Rice milling	3	560,896	32	68,224	936,387	1,079,641
Furniture and upholstering	23	692,790	216	296,687	435,177	1,048,825
Total, twenty-five leading industries	**1,170**	**259,630,797**	**39,408**	**43,151,296**	**88,416,762**	**174,247,500**
Grand Total, all industries	**1,495**	**329,008,375**	**47,462**	**54,865,756**	**140,191,084**	**249,619,714**
Percentage of 25 leading industries to grand total	78·26	78·91	83·03	78·65	63·04	69·80

[1] Including Yukon Territory.

Section 4.—Principal Factors in Manufacturing Production.

Subsection 1.—Capital Employed.

In a retrospective study of capital employed in Canadian manufactures since 1900, the remarkable increase denotes rapid growth in industrial operations. From 1900 to 1905 the capital increased from $446,900,000 to $833,900,000, and advanced to $1,958,700,000 in 1915. During this period returns were received from establishments with 5 hands and over, and while the rise of wholesale prices did not exceed 37 p.c., the capital employed in manufactures increased nearly 340 p.c.

The capital investment in 1926 in all establishments irrespective of the number of employees was $3,981,569,590, as compared with $3,808,309,981 in 1925, and with $3,190,026,358 in 1921, an increase of 24·8 p.c. in 5 years.

The provincial distribution of the manufactures of Canada may be illustrated by the investments of capital. Capital employed in Ontario during 1920 was 49·5 p.c. of the total, 50·6 p.c. in 1921, 52·5 p.c. in 1923, 50·4 p.c. in 1925 and 49·8 p.c. in 1926. The percentage employed in the plants of Quebec was 30·5 in 1920, 30·8 in 1921, 29·9 in 1923, 29·9 in 1925 and 30·6 in 1926. British Columbia held third place in 1926 with a capital of 8·3 p.c. of the total, while Manitoba, Nova Scotia and New Brunswick followed in the order named, with proportions of between 2 p.c. and 4 p.c. each. (Table **15.**)

From a survey of the industrial groups in which the capital of the country is invested, it appears that the wood and paper group led in 1926, with an investment of 23·3 p.c. of the total. The central electric station industry was second with 19·0, the iron and steel group third with 15·0, and the vegetable products group fourth, with 11·3 p.c. (Table **16**).

The statistics of capital employed in the manufacturing industries are of interest in deducing the proportions of fixed and liquid assets. In 1921, lands, buildings and machinery constituted 60 p.c. of the total capital, while in 1923 the proportion had increased to 64 p.c., in 1924 to 65 p.c. and to 66 p.c. in 1925 and 1926. The fixed assets amounted to $2,626,963,690 in 1926, while quick assets, including the materials on hand, stock in process, cash and sundries, were valued at $1,354,605,900. Details by industrial groups and by provinces are given in Table **17.**

15.—Provincial Distribution of Capital employed in the Manufacturing Industries of Canada, in Percentages, 1918-1926.

Provinces.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.
Prince Edward Island	0·1	0·1	0·1	0·1	0·1	0·1	0·1	0·1	0·1
Nova Scotia	4·3	4·1	4·2	3·3	3·3	3·2	3·1	3·1	3·0
New Brunswick	2·5	2·8	3·1	3·1	2·5	2·5	2·5	2·4	2·4
Quebec	28·5	29·3	30·5	30·8	29·9	29·9	29·5	29·9	30·6
Ontario	49·9	49·0	49·5	50·6	52·3	52·5	51·8	50·4	49·8
Manitoba	3·3	3·3	3·4	2·9	2·7	2·7	3·1	3·2	3·2
Saskatchewan	1·2	1·0	0·9	1·0	1·0	0·9	0·9	0·8	0·8
Alberta	2·0	1·9	1·8	1·7	1·7	1·8	1·9	1·8	1·8
British Columbia	8·1	8·4	6·5	6·5	6·5	6·5	7·1	8·3	8·3
Yukon	0·1	0·1							
Total	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**

16.—Distribution of Capital employed in the Manufacturing Industries of Canada, by Industrial Groups and Percentages, 1924-1926.

Industrial Groups.	1924.		1925.		1926.	
	Amount.	Percentage.	Amount.	Percentage.	Amount.	Percentage.
	$		$		$	
Vegetable products	414,922,612	11·7	439,490,764	11·5	449,259,094	11·3
Animal products	208,466,666	5·9	210,015,438	5·5	223,938,559	5·6
Textile products	298,665,942	8·4	305,776,409	8·1	317,275,429	8·0
Wood and paper	879,307,261	24·9	907,204,530	23·8	929,589,278	23·3
Iron and its products	535,924,351	15·1	567,912,477	14·9	597,982,098	15·0
Non-ferrous metals	114,354,971	3·2	181,600,227	4·8	202,503,426	5·1
Non-metallic minerals	235,613,111	6·7	239,823,825	6·3	261,724,184	6·6
Chemicals and allied products	126,495,685	3·6	126,483,348	3·3	133,407,891	3·3
Miscellaneous industries	96,497,768	2·7	103,281,876	2·7	109,669,565	2·8
Central electric stations	628,565,093	17·8	726,721,087	19·1	756,220,066	19·0
Total	**3,538,813,460**	**100·0**	**3,808,309,981**	**100·0**	**3,981,569,590**	**100·0**

17.—Forms of Capital employed in the Manufacturing Industries of Canada, by Provinces and by Groups of Industries, 1926.

Provinces and Groups.	Establishments.	Land, buildings, fixtures, machinery and tools.	Materials on hand, stocks in process, finished products, etc.	Cash, trading and operating accounts and bills receivable.	Total capital.
	No.	$	$	$	$
Grand Total	**22,708**	**2,626,963,690**	**722,451,467**	**632,154,433**	**3,981,569,590**
PROVINCES.					
Prince Edward Island	299	2,120,537	440,407	289,066	2,850,010
Nova Scotia	1,163	94,116,617	13,209,130	10,725,155	118,050,902
New Brunswick	910	65,040,530	19,669,161	10,951,463	95,661,154
Quebec	7,164	838,125,437	206,128,921	172,721,600	1,216,975,958
Ontario	9,457	1,230,361,812	389,477,828	365,326,281	1,985,165,921
Manitoba	797	90,001,125	20,341,007	17,103,792	127,445,924
Saskatchewan	674	23,666,843	6,535,766	3,740,451	33,943,060
Alberta	749	51,328,299	12,704,734	8,435,253	72,468,286
British Columbia and Yukon	1,495	232,202,490	53,944,513	42,861,372	329,008,375
INDUSTRIAL GROUPS.					
Vegetable products	4,529	252,153,333	114,667,443	82,438,318	449,259,094
Animal products	4,896	110,282,893	68,208,172	45,447,494	223,938,559
Textiles and textile products	1,698	159,297,651	82,205,290	75,772,488	317,275,429
Wood and paper products	6,751	624,795,278	174,464,297	130,329,703	929,589,278
Iron and its products	1,142	334,180,410	131,661,404	132,140,284	597,982,098
Non-ferrous metal products	403	112,145,060	49,308,788	41,049,578	202,503,426
Non-metallic mineral products	1,240	194,069,514	41,329,029	26,325,641	261,724,184
Chemicals and allied products	556	73,473,650	28,913,627	31,020,614	133,407,891
Miscellaneous industries	436	59,916,536	17,223,314	32,529,715	109,669,565
Central electric stations	1,057	706,649,365	14,470,103	35,100,598	756,220,066

Subsection 2.—Employment in Manufactures.

The total number of persons engaged in those manufacturing industries of Canada for which statistics were obtained in 1926 was in that year 581,539, as compared with 544,225 in the same industries in 1925 and 508,503 in 1924[1]. The 1926 employees included 81,794 salaried employees, this figure being obtained from the manufacturers at the end of each year, and 499,745 wage-earners, the average number employed, as derived from the manufacturers' records of the numbers on the pay-rolls on the 15th of each of the twelve months. Prior to 1925, the number of wage-earners was computed as the sum of the number recorded each month divided by 12 whether the establishment was operating the 12 months or not. Beginning with the statistics for 1925, in seasonal industries which are in operation only a limited number of months in each year, such as sawmilling, fruit and vegetable canning, etc., the average was computed by dividing the sum of the wage-earners reported on the 15th of each month by the number of months in operation. This change of method increased the apparent number of employees, especially in seasonal industries, but also in the groups containing such seasonal industries and in provincial and Dominion totals. Similarly, the change of method exerted a reducing influence on apparent average wages and on all other averages per wage-earner and per employee.

The number of salaried employees and of wage-earners, as thus ascertained, is given for each of the years since 1917, the year of the first annual census of manufacturing production, in Table 18. Then, taking the percentage of those employed in each year to those employed in 1917, and dividing it into the volume of manufacturing production in each year (see Table 4 of this chapter for method used in obtaining this figure), the quotient gives a tentative conclusion regarding the efficiency of production per person employed in years subsequent to 1917, as compared with that year. This index of the efficiency of production per employee is, of course, affected by the change explained above in the method of computing the number of employees in 1925 and subsequent years as compared with 1924 and previous years. Inasmuch as the change increased the apparent number of employees in 1925 and 1926, it proportionately decreased the index of the efficiency of production. How far the increased efficiency of recent years may be due to the use of improved appliances of production (the horse-power used per wage-earner employed increased from 3·04 in 1917 to 6·37 in 1926), how far to increased efficiency in the employees and how far to improvements in methods of organization, is a problem which cannot be solved for the country as a whole with our present information. It may, however, be possible for those having intimate knowledge of the business of individual firms to solve this problem with approximate accuracy for their own particular plants. The table here published may be considered as supplying satisfactory evidence of a general gain in volume of production per person employed. In this connection it should be remembered, however, that in 1917, owing to the large numbers overseas, many persons of low efficiency were being employed, their inefficiency being at the time concealed by the prevailing inflation of prices.

[1] For statistics showing the trend of employment in manufacturing industries in 1927 and 1928, see in the index, "Employment as reported by employers".

18.—Salaried and Wage-earning Employees in the Manufacturing Industries of Canada, with Volume of Manufacturing Production and Comparative Efficiency of Production, 1917-1926.

Years.	Salaried Employees.	Wage-Earners.	Total Employees.	Percentage of Number of Employees relative to 1917.	Index Number of Volume of Mf'd. Products.	Efficiency of Production.
	No.	No.	No.	p.c.		
1917	68,726	552,968	621,694	100·0	100·0	100·0
1918	70,706	547,599	618,305	99·5	102·1	102·6
1919	81,681	529,327	611,008	98·3	98·3	100·0
1920	83,015	526,571	609,586	98·1	95·2	97·0
1921	74,873	381,203	456,076	73·4	87·4	119·1
1922	76,040	398,390	474,430	76·3	97·8	128·2
1923	78,273	446,994	525,267	84·5	106·8	126·4
1924	76,230	432,273	508,503	81·8	104·7	128·0
1925	77,623	466,602	544,225	87·5	112·4	128·5
1926	81,794	499,745	581,539	93·5	128·6	137·5

Statistics of employment in manufacturing industries during 1926, derived from the Census of Manufactures, are shown in Table 6 of this chapter.

According to these statistics, the 22,708 establishments covered employed 81,794 salaried employees and 499,745 wage-earners, a total of 581,539 persons. Out of every 1,000 persons employed in manufacturing, 141 were classed as salary earners and 859 as wage-earners; the former earned 23·4 p.c. and the latter 76·6 p.c. of the total amount paid out as remuneration for services.

Provincial Distribution of Employees in 1926.—An analysis of the returns by provinces shows that 44,210 or 54·3 p.c. of all employees on salaries were employed in Ontario; of this number 33,098 were males and 11,112 were females. The proportion that the male salary workers in Ontario bore to the total number of such workers was 52·1 p.c., while female office employees constituted 60·7 p.c. of the total. In Quebec, which, with 22,255 persons, recorded the second largest number of salaried workers, were situated 28·2 p.c. of the male and 23·8 p.c. of the female salaried employees. British Columbia also had a higher proportion of male than female salaried employees, having 6·6 p.c. of male to 4·3 p.c. of female salary earners. Of the total salaries, $82,705,144 or 54·2 p.c. was reported in Ontario, $42,621,293 or 27·9 p.c. in Quebec, and $9,385,074 or 6·1 p.c. in British Columbia.

The male wage-earners numbered 385,202 and the female 114,543; 47·8 p.c. of the former and 45·1 p.c. of the latter were employed in Ontario. Quebec manufacturers reported 29·6 p.c. of the males as compared with 38·8 p.c. of the females, while British Columbia had 9·5 p.c. of the males and 5·1 p.c. of the females. As to earnings, Ontario firms paid out 50·4 p.c. of the total, Quebec 29·3 p.c. and British Columbia 9·1 p.c.

Distribution by Industries.—The wood and paper industries, with 17,962 salaried employees, reported a larger number of these than any other group, having 22·0 p.c. of the total and paying 22·8 p.c. of the aggregate salaries; 23·3 p.c. of the total wage-earners belonged to this group, which paid out 25·2 p.c. of the wages. Only 8·6 p.c. of the total females working for wages were in the wood and paper industries, as compared with 27·6 p.c. of the total number of men on wages. The textile industries came next in order in respect of workers, having 18·5 p.c. of the wage-earners, who earned 14·5 p.c. of the wages; the number of female workers in these industries formed 49·1 p.c. of the total females and the males only

9·4 p.c. of the aggregate of male wage-earners. In the iron and steel group, 18·1 p.c. of the total workers were paid 22·2 p.c. of the total wages. The number of men employed in these industries constituted 22·6 p.c. of the total male wage-earners in 1926, while only 2·7 p.c. of the total female wage-earners were engaged in iron and steel plants.

19.—Percentages of Male and Female Employees on Salaries and Wages, by Provinces and Groups of Industries, 1926.

Provinces and Groups.	Employees on Salaries.		Salaries.	Employees on Wages.		Wages.
	Males.	Females.		Males.	Females.	
PROVINCES.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Prince Edward Island	0·3	0·2	0·1	0·3	0·7	0·1
Nova Scotia	1·9	2·1	1·6	3·1	3·0	2·1
New Brunswick	2·0	1·7	1·9	3·2	3·3	2·3
Quebec	28·2	23·8	27·9	29·6	38·8	29·3
Ontario	52·1	60·7	54·2	47·8	45·1	50·4
Manitoba	4·6	3·9	4·4	3·8	2·7	4·0
Saskatchewan	1·7	1·1	1·4	0·9	0·3	0·9
Alberta	2·6	2·2	2·4	1·8	1·0	1·8
British Columbia and Yukon	6·6	4·3	6·1	9·5	5·1	9·1
Total	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
INDUSTRIAL GROUPS.						
Vegetable products	12·0	11·8	12·8	11·3	17·9	11·1
Animal products	14·2	10·4	10·7	10·7	13·8	8·7
Textile products	8·6	14·5	10·4	9·4	49·1	14·5
Wood and paper products	21·7	22·9	22·8	27·6	8·6	25·2
Iron and its products	16·4	14·8	17·2	22·6	2·7	22·2
Non-ferrous metal products	6·9	7·8	7·0	5·3	3·2	5·7
Non-metallic mineral products	4·7	3·7	4·2	5·6	0·9	5·1
Chemicals and allied products	4·5	5·7	5·2	2·1	2·2	2·1
Miscellaneous industries	3·4	3·2	3·7	3·4	1·6	3·2
Central electric stations	7·6	5·2	6·0	2·0	–	2·2

Monthly Record of Employment in Manufactures, 1926.—A monthly record of the number of wage-earners employed in Canadian manufactures, as compiled by the Census of Industry, is given by sex in Table **20**, which shows that the peak of employment was in July, when manufacturing generally was at a high level. The number engaged in factories increased steadily from the beginning of 1926 until July; during August less activity was reported, while employment rose slightly in the following month. During the period of continuous expansion up to July, 78,748 persons were added to the pay rolls of the reporting manufacturers.

While employment for male operatives expanded from the beginning of the year to its maximum in July, the number of female workers was greatest in October, chiefly on account of seasonal activity in the vegetable and fruit preserving group, which employs a considerable proportion of women. Textiles, the one group in which the majority of workers are women, also reported more than average employment during the autumn. Indicative of the expansion of industrial operations during 1926 is the fact that in every month of that year the number of wage-earners employed exceeded the total for the corresponding month of the previous year.

20.—Total Number of Wage-earners employed in the Manufacturing Industries of Canada, by Months, 1925 and 1926.

Months.	1925.			1926.		
	Males.	Females.	Total.	Males.	Females.	Total.
January	310,598	90,940	401,538	334,656	97,483	432,139
February	318,517	93,449	411,966	344,800	100,379	445,179
March	330,806	95,186	425,992	357,560	101,994	459,554
April	347,755	96,277	444,032	370,259	102,829	473,088
May	366,986	99,128	466,114	388,408	105,748	494,156
June	371,957	99,517	471,474	400,593	107,296	507,889
July	368,804	98,208	467,012	402,407	108,480	510,887
August	365,876	99,908	465,784	396,952	108,965	505,917
September	366,270	106,182	472,452	393,652	113,265	506,917
October	364,066	106,215	470,281	389,812	113,867	503,679
November	348,721	103,705	452,426	373,974	110,426	484,400
December	337,605	100,053	437,658	358,396	106,852	465,248

Days in Operation and Hours Worked.—During 1926, each plant, on the average, operated full time 232 days. The average day was 8·9 hours. The time in operation and the average number of hours worked are shown by provinces and industrial groups in Table **21.**

21.—Number of Days in Operation and of Hours worked per Shift in the Manufactures of Canada, by Provinces and Groups, 1926.

Provinces and Groups.	Number of Establishments.	Time in Operation—Number of Days.			Average Days in Full Time Operation per Establishment.	Average Hours Worked per Shift.
		Full time.	Part time.[1]	Idle.[1]		
PROVINCES.						
Prince Edward Island	299	37,326	–	–	125	9·0
Nova Scotia	1,163	209,450	–	–	180	9·3
New Brunswick	910	146,507	–	–	161	9·4
Quebec	7,164	1,584,123	–	–	221	9·2
Ontario	9,457	2,330,981	–	–	246	8·9
Manitoba	797	215,321	–	–	270	8·6
Saskatchewan	674	185,383	–	–	275	9·1
Alberta	749	201,755	–	–	269	8·6
British Columbia and Yukon	1,495	364,146	–	–	244	8·3
Total	**22,708**	**5,274,992**	**–**	**–**	**232**	**8·9**
INDUSTRIAL GROUPS.						
Vegetable products	4,529	1,110,672	93,165	192,905	245	9·2
Animal products	4,896	1,027,445	37,100	185,128	210	9·0
Textile products	1,698	435,095	39,853	34,860	256	8·9
Wood and paper products	6,751	1,298,280	88,189	665,974	192	8·9
Iron and its products	1,142	335,420	–	–	294	8·9
Non-ferrous metal products	403	116,486	–	–	289	8·5
Non-metallic mineral products	1,240	294,350	–	–	237	9·0
Chemicals and allied products	556	155,779	–	–	280	8·8
Miscellaneous industries	436	115,660	8,398	8,486	265	8·8
Central electric stations	1,057	385,805	–	–	365	8·5

[1] Information on these points is incomplete for a number of industrial groups.

Subsection 3.—Wages and Salaries in Canadian Manufacturing Industries, 1926.

The total amount disbursed by manufacturers in salaries and wages during 1926 was $653,850,933 paid to 581,539 workers, as compared with $596,015,171 paid to 544,225 persons in 1925, and $559,884,045 paid to 508,503 employees in 1924. Of the 1926 aggregate, $152,705,944 or 23·4 p.c. was paid to 81,794 salaried employees who constituted 14·1 p.c. of the total number, and $501,144,989 or 76·6 p.c. was paid in wages to 499,745 wage-earners, who formed 85·9 p.c. of the aggregate number of employees.

The average salary paid in the manufacturing industries during 1926 was $1,867, compared with $1,843 in 1925, $1,831 in 1924, $1,824 in 1923 and $1,791 in 1922. The average wage paid was $1,003 in 1926, $971 in 1925, $972 in 1924, $959 in 1923 and $939 in 1922.

The increase of 10·6 p.c. recorded in aggregate wages in 1926 as compared with the preceding year was accompanied by a 7·2 p.c. gain in the number of operatives employed, while the average wage increased by 3·4 p.c. Employees on salaries increased by 5·3 p.c. and aggregate salaries by 6·7 p.c., while average salaries advanced by 1·3 p.c.

The proportion of female wage-earners per 1,000 was 229 and of male operatives 771 during 1926, while in each 1,000 salary earners 224 were women and 776 were men. These proportions were practically the same as in the preceding year. The number of male salary earners increased by 5·1 p.c. in 1926 as compared with 1925, while there was a gain of 6·2 p.c. in the number of women office help employed. The percentages of increase among wage-earners were 7·2 for the males and 7·0 for the females.

Average Earnings, by Provinces, of Persons Employed in Manufactures.—Table 22 shows the number of salary and wage-earners and the average salary and wage paid in 1926 by manufacturers in the various provinces, also average earnings in 1925.

There were successive rises in average salaries from Prince Edward Island to Quebec, which showed the highest average of all the provinces, while the mean in Ontario was slightly lower than in Quebec. In the Prairie Provinces, the averages were also smaller, especially in Saskatchewan, where salaries were, on the whole, below those in New Brunswick. In British Columbia and the Yukon the average was $1,884. Sixty-one p.c. of the total female salary earners were employed in Ontario, as compared with only 52 p.c. of the total male salaried workers; in Quebec and British Columbia, on the other hand, the proportion of women workers was lower than that of men.

As in previous years, there were steady increases in average wages from the eastern provinces through to Saskatchewan, where the mean for the year, $1,174, was the highest in the Dominion, being $171 greater than the general average. In that province, where the number employed in manufacturing was not large, there was an unusually small proportion of women workers, while many of the male employees were engaged in the better-paid wood and paper, electric light and power industries. In the four provinces situated to the east, average wages in manufacturing were lower than the mean for the Dominion, while from Ontario westward the opposite was the case.

The seasonal nature of some of the leading manufactures, notably fish-preserving and lumbering, tended to reduce the mean wage in the Maritime Provinces. These

industries, in which 36·2 p.c. of the reported employees were engaged, worked on the average only 99 and 100 days respectively during 1926. Quebec, where the mean wage was below the general average, reported a larger proportion of female workers than the other provinces; of these a considerable number were employed in the textile, food and other industries. That province had 38·8 p.c. of the total number of women employed in manufacturing in the Dominion, as compared with 29·6 p.c. of the aggregate male operatives, but the 31·7 p.c. of the total wage-earners reported in Quebec received only 29·3 p.c. of the total wages. On the other hand, in Ontario, where the mean was higher than the general average, 47·8 p.c. of the total males and 45·1 p.c. of the total females, or 47·2 p.c. of the general aggregate, were paid 50·4 p.c. of the total wages disbursed. The fact that average wages in Alberta and British Columbia were lower than in Saskatchewan was partly a result of the seasonal nature of some of the industries in these provinces, especially fish and fruit-preserving and sawmilling in British Columbia.

22.—Employees on Salaries and Wages in Manufacturing Industries, 1926 and Average Salary and Wage, by Provinces, 1925 and 1926.

Provinces.	Employees on Salaries.			Average Salaries.		Employees on Wages.			Average Wages.	
	Male.	Female.	Total.	1926.	1925.	Male.	Female.	Total.	1926.	1925.
	No.	No.	No.	$	$	No.	No.	No.	$	$
Prince Edward Island	164	33	197	856	795	1,234	830	2,064	253	198
Nova Scotia	1,213	378	1,591	1,541	1,526	11,811	3,380	15,191	695	647
New Brunswick	1,260	319	1,579	1,817	1,746	12,359	3,736	16,095	729	740
Quebec	17,890	4,365	22,255	1,915	1,882	114,024	44,390	158,414	926	885
Ontario	33,098	11,112	44,210	1,871	1,846	184,410	51,733	236,143	1,069	1,042
Manitoba	2,907	715	3,622	1,838	1,816	14,515	3,064	17,579	1,156	1,146
Saskatchewan	1,074	200	1,274	1,676	1,690	3,277	353	3,630	1,174	1,167
Alberta	1,686	398	2,084	1,781	1,747	6,995	1,154	8,149	1,116	1,129
British Columbia and Yukon	4,189	793	4,982	1,884	1,925	36,577	5,903	42,480	1,071	1,034
Total	**63,481**	**18,313**	**81,794**	**1,867**	**1,843**	**385,202**	**114,543**	**499,745**	**1,003**	**971**

Average Earnings in 40 Leading Industries.—Table 23 is a record of employees by sex and of average salaries and wages paid in the 40 leading industries of Canada during 1926, together with the average number of days the establishments in each industry operated. Averages for 1925 are also given.

Average Salaries.—In 16 industries the average salaries were in excess of $2,000; in 21 they ranged between $1,500 and $2,000, while in only three were they below $1,500 during 1926. None of the four groups paying the highest salaries —sugar refineries, breweries, rolled products, pig iron, steel products and ferro-alloys, and pulp and paper—reported a proportion of female workers equal to the general percentage in the 40 industries, while the numbers employed were rather small except in the pulp and paper industry. In the groups paying an average salary of over $2,000, only the automobile, castings and forgings, hosiery and knit goods, printing and bookbinding and furniture and upholstering industries employed more than the general proportion of female office help.

The lowest salaries, ranging between $1,000 and $1,500, were reported in the butter and cheese and fish-curing and packing industries, in both of which the percentage of women workers was below the average. Various factors contributed to reduce the mean yearly remuneration of these groups. Fish-preserving plants operate during a very short active season; butter and cheese factories, which also work below the average number of days, are mainly situated in small towns and country places.

Average Wages.—The highest wages, varying between $1,300 and $1,600, were paid in the automobile, non-ferrous metal smelting, petroleum, central electric station, rolled products, pig iron, steel products and ferro-alloys, acids, alkalies, salts and compressed gases, printing and publishing, railway rolling stock and pulp and paper industries, in all of which the proportion of female workers was below the general average. In 14 industries, the wages paid averaged between $1,000 and $1,300; in 15 groups, they averaged between $500 and $1,000; while in two highly seasonal industries—fish-curing and packing and fruit and vegetable canning—they were under $500. In these two, the number of days in operation throughout the Dominion during 1926 averaged 99 and 164 respectively; the proportion of female workers was also high, being 39·1 p.c. in the former and 62·7 p.c. in the latter, as compared with the general proportion of 21·5 p.c. in the 40 industries. In the textile divisions wages were generally low, employees in men's clothing factories receiving the highest remuneration in the group. The proportion of women workers employed in these trades was large, while the number of days in operation was about the average. Sawmills worked on the average 100 days, employing only males, who were paid an average wage of $936 during the season of 1926.

23.—Employees by Sex and Average Salaries and Wages paid in Forty Leading Canadian Manufacturing Industries during 1926, with Average Number of Days operated by Plants in each Industry.

SALARIES.

Industries.	Employees on Salaries.			Average Salary.	
	Male.	Female.	Total.	1926.	1925.
	No.	No.	No.	$	$
Pulp and paper	2,600	499	3,099	2,418	2,328
Flour and grist-mill products	955	193	1,148	1,897	1,859
Slaughtering and meat-packing	2,399	442	2,841	1,801	1,919
Sawmills	1,680	254	1,934	2,011	2,022
Automobiles	1,233	422	1,655	2,365	2,316
Butter and cheese	3,710	608	4,318	1,040	1,052
Central electric stations	4,854	950	5,804	1,572	1,485
Rubber goods including footwear	1,362	424	1,786	1,734	1,644
Cotton yarn and cloth	474	97	571	2,397	2,503
Non-ferrous metal smelting	590	45	635	1,954	2,470
Railway rolling stock	1,519	104	1,623	2,006	2,018
Petroleum	448	70	518	2,137	2,187
Castings and forgings	1,838	529	2,367	2,071	2,015
Electrical apparatus and supplies	2,636	973	3,609	1,739	1,765
Sugar refineries	299	53	352	2,847	2,616
Bread and other bakery products	549	239	788	1,598	1,586
Printing and publishing	4,135	1,671	5,806	1,578	1,614
Hosiery, knit goods and gloves	647	373	1,020	2,016	2,076
Clothing, women's factory	910	646	1,556	1,954	1,983
Cigars and cigarettes	964	263	1,227	1,956	2,032
Biscuits, confectionery and chewing gum	1,383	452	1,835	1,889	1,754
Boots and shoes, leather	1,010	330	1,340	1,976	2,012
Breweries	593	68	661	2,728	2,422
Planing mills, sash and door factories	995	210	1,205	1,706	1,811
Clothing, men's factory	984	374	1,358	1,929	1,872
Rolled products, pig iron, steel products, etc	434	69	503	2,509	2,648
Sheet metal products	899	268	1,167	1,846	1,867
Machinery	1,458	451	1,909	1,851	1,884
Agricultural implements	1,220	308	1,528	1,668	1,666
Fish-curing and packing	501	45	546	1,344	1,276
Printing and bookbinding	1,327	455	1,782	2,013	1,922
Furniture and upholstering	738	253	991	2,021	1,973
Acids, alkalies, salts and compressed gases	400	93	493	2,014	1,868
Leather tanneries	267	61	328	2,308	2,609
Furnishing goods, men's	476	216	692	1,676	1,606
Paints and varnishes	637	190	827	2,125	2,049
Fruit and vegetable canneries	350	145	495	1,499	1,521
Hardware and tools	558	222	780	1,986	2,061
Brass and copper products	650	157	807	1,885	1,888
Soaps, washing compounds and toilet preparations	411	185	596	1,968	1,994
Total, forty leading industries	**49,093**	**13,407**	**62,500**	**1,831**	**1,820**
Grand Total, all industries	**63,481**	**18,313**	**81,794**	**1,867**	**1,843**

23.—Employees by Sex and Average Salaries and Wages Paid in Forty Leading Canadian Manufacturing Industries during 1926, with Average Number of Days operated by Plants in each Industry—concluded.

Industries.	Employees on Wages.			Average Wage.		Average number of days in operation.	
	Male.	Female.	Total.	1926.	1925.	1926.	1925.
	WAGES.						
	No.	No.	No.	$	$	No.	No.
Pulp and paper	27,280	900	28,180	1,302	1,267	281	267
Flour and grist mill products	5,065	135	5,200	970	1,005	223	217
Slaughtering and meat-packing	7,160	684	7,844	1,101	1,065	288	288
Sawmills	33,075	69	33,144	936	897	100	101
Automobiles	10,047	203	10,250	1,535	1,577	306	301
Butter and cheese	6,641	265	6,906	1,002	969	224	227
Central electric stations	7,602	–	7,602	1,423	1,360	365	365
Rubber goods including footwear	8,738	3,063	11,801	984	1,010	268	271
Cotton yarn and cloth	10,557	9,195	19,752	702	652	282	279
Non-ferrous metal smelting	5,591	–	5,591	1,492	1,605	383	365
Railway rolling stock	20,622	41	20,663	1,329	1,257	277	265
Petroleum	3,209	26	3,235	1,479	1,454	309	266
Castings and forgings	16,412	404	16,816	1,138	1,112	294	290
Electrical apparatus and supplies	8,944	2,693	11,637	1,061	1,010	291	294
Sugar refineries	2,458	106	2,564	1,157	1,193	245	244
Bread and other bakery products	11,059	1,542	12,601	1,069	1,085	299	302
Printing and publishing	7,547	1,358	8,905	1,365	1,305	299	299
Hosiery, knit goods and gloves	4,544	10,910	15,454	728	713	283	281
Clothing, women's factory	3,379	9,052	12,431	880	881	283	279
Cigars and cigarettes	1,838	3,269	5,107	658	639	273	248
Biscuits, confectionery and chewing gum	4,473	5,668	10,141	719	706	279	275
Boots and shoes, leather	8,338	5,338	13,676	883	844	287	269
Breweries	3,275	40	3,315	1,186	1,181	293	278
Planing mills, sash and door factories	9,290	123	9,413	1,017	990	262	252
Clothing, men's factory	4,523	5,266	9,789	1,009	949	2·9	254
Rolled products, pig iron, steel products, etc.	5,634	3	5,637	1,382	1,325	288	263
Sheet metal products	5,670	639	6,309	1,059	1,013	298	299
Machinery	7,385	254	7,639	1,166	1,138	301	291
Agricultural implements	8,414	149	8,563	1,178	1,101	293	293
Fish-curing and packing	10,261	6,601	16,862	290	266	99	98
Printing and bookbinding	6,052	2,115	8,167	1,156	1,097	295	298
Furniture and upholstering	8,397	412	8,809	960	944	288	284
Acids, alkalies, salts and compressed gases	1,893	14	1,907	1,366	1,320	314	313
Leather tanneries	3,509	97	3,606	983	948	287	287
Furnishing goods, men's	989	6,516	7,505	646	638	290	287
Paints and varnishes	1,441	216	1,657	977	934	289	303
Fruit and vegetable canneries	2,378	4,005	6,383	366	340	164	154
Hardware and tools	4,617	910	5,527	970	976	288	278
Brass and copper products	3,363	363	3,726	1,126	1,115	286	285
Soaps, washing compounds and toilet preparations	968	504	1,472	962	965	273	290
Total, forty leading industries	**302,638**	**83,138**	**385,776**	**1,015**	**979**	**235**	–
Grand Total, all industries	**385,202**	**114,543**	**499,745**	**1,003**	**971**	**232**	–

Real Earnings of Employees in Recent Years.—The total amount paid to the employees in industrial plants during 1926 was $653,850,933, as compared with $509,382,027 in 1917. The wage payments in 1926 were $501,144,989, while the salaried employees received a remuneration of $152,705,944. The average yearly wage of the wage-earner was $1,003 in 1926, as compared with $760 in 1917, an increase of 32·0 p.c. in average earnings. When the index number representing the average yearly wages, with 1917 as a base, is divided by the index number of the cost of living, with the same base, it is seen that real wages advanced by 13·0 p.c. between 1917 and 1926. The details of the computation are given in Table **24.**

24.—Average Yearly Earnings and Real Wages of Wage-earners in Manufacturing Industries, 1917-1926.

Years.	Amount of wages paid.	Average number of wage-earners.	Average yearly earnings.	Index Numbers.		
				Average yearly earnings.	Cost of living.	Real value of average yearly earnings.
	$	No.	$			
1917	420,094,869	552,968	760	100·0	100·0	100·0
1918	480,949,599	547,599	878	115·5	113·7	101·6
1919	496,570,995	529,327	938	123·4	122·2	101·0
1920	583,853,225	526,571	1,109	145·9	142·8	102·2
1921	381,910,145	381,203	1,002	131·8	125·1	105·4
1922	374,212,141	398,390	939	123·6	115·7	106·8
1923	428,731,347	446,994	959	126·1	116·7	108·1
1924	420,269,406	432,273	972	127·9	114·7	111·5
1925	452,958,655	466,602	971	127·8	116·0	110·2
1926	501,144,989	499,745	1,003	132·0	116·8	113·0

Percentage of Wages and Salaries to Value of Product.—An interesting inquiry is that regarding the relation between wages and salaries paid by manufacturers and the total net value of production. Figures of gross production are often erroneously used in such calculations, but the values out of which the wages of employees must in the long run come are the values added to the raw materials while they are in the factory. Such added values constitute the real production of the manufacturing plant, and are alone available for payment of wages and salaries, of interest, rent and taxes and of charges for fuel, power, lighting, repairs and all other overhead charges. While amounts paid on some of these accounts are not readily ascertainable, amounts paid in wages and salaries are available from the statistics of the Census of Manufactures. These figures are given for 1917 and subsequent years in Table 25, and show the increasing part of the manufacturer's dollar which has gone to his salaried and wage-earning employees in the years since 1917. In the six latest years, salaries seem to bear a particularly large percentage to the total net production of Canadian manufacturing industries, while the percentage of wages to total product was not very much larger in 1926 than in 1917.

25.—Percentages of Wages and Salaries paid to Total Net Value of Manufacturing Production, 1917-1926.

Years.	Value added by process of manufacture.	Salaries paid.	Wages paid.	Percentage		
				of salaries to values added.	of wages to values added.	of total salaries and wages to values added.
	$	$	$	p.c.	p.c.	p.c.
1917	1,332,180,767	89,287,158	420,094,869	6·7	31·5	38·2
1918	1,460,723,777	101,507,889	480,949,599	6·9	32·9	39·8
1919	1,509,870,745	121,892,144	496,570,995	8·1	32·9	41·0
1920	1,686,978,408	148,267,360	583,853,225	8·8	34·6	43·4
1921	1,209,143,344	136,874,992	381,910,145	11·3	31·6	42·9
1922	1,198,434,407	136,219,171	374,212,141	11·4	31·2	42·6
1923	1,311,025,375	142,738,681	428,731,347	10·9	32·7	43·6
1924	1,256,643,901	139,614,639	420,269,406	11·1	33·4	44·5
1925	1,360,879,907	143,056,516	452,958,655	10·5	33·3	43·8
1926	1,492,645,039	152,705,944	501,144,989	10·2	33·6	43·8

Subsection 4.—Size of Manufacturing Establishments.

An essential characteristic of the recent evolution of industry has been the increase in the size of the typical manufacturing establishment. The full utilization of highly specialized machinery necessitates large-scale production, while the improvements in transportation have widened the market, and the development

of more efficient methods of business administration has made it possible for the individual manufacturer to supervise effectively a larger plant. The increase in the scale of production of the typical manufacturing establishment has been experienced in all industrial countries which have been affected by the so-called "Industrial Revolution", and not least in Canada, where the rise of the factory system in industry has taken place approximately since Confederation.

The size of the manufacturing establishment is generally measured either by the number of employees or by the value of product, but each of these methods has its limitations. The former takes no account of the differences in capital equipment at different times or in various industries; obviously the increased use of machinery, as in the flour-milling industry, may lead to increased production concurrently with a decrease in the number of employees. The latter measure has to be adjusted for changes in the price level; and, as between industries, it makes those which handle expensive raw materials appear to operate on a larger scale. Both measures are subject to two limitations: first, they depend on the fluctuation of business activity and the demand of the consumer; secondly, over any lengthy period of time there is the difficulty of comparability resulting from changes in the method of the census.

Thus, while it is possible in a general way to state that the average size of the manufacturing establishment in Canada has increased between 1870 and 1926, the 1926 figures are not on the same basis as the 1870 figures, especially since they do not include all the small custom and repair establishments included at the earlier date. The same difficulty arises right up to the most recent times. It is only in the last few years that the statistics have been so analysed as to be strictly comparable, and the results of this analysis are given in Tables **26** to **29.**

Size as Measured by Gross Value of Products.—In Tables **26** and **27** the size of the establishments reporting to the Census of Manufactures is shown by the gross value of products—Table **26** giving comparative figures for 1922 (the first year for which the figures are available) and 1926, and Table **27** the figures by provinces for 1926.

The comparative Table **26** shows that, while in 1922 the 420 establishments which had each a gross production of over $1,000,000 had an aggregate value of products of $1,268,056,129 or 51·1 p.c. of the total production of all manufacturing industries, the 566 establishments producing over $1,000,000 each in 1926 had an aggregate value of products of $1,884,401,524, or 58 p.c. of the grand total for all manufacturing establishments—a very significant change in the short period of four years when the general trend of prices was not very greatly upward.

26.—Manufacturing Establishments, grouped according to Gross Value of Products, with Total and Average Values of Products in each Class, 1922 and 1926.

Gross Value of Products.	1922.			1926.		
	Establishments.	Total production.	Average production.	Establishments.	Total production.	Average production.
	No.	$	$	No.	$	$
Under $25,000	14,978	114,205,770	7,625	13,937	110,895,426	7,956
$ 25,000 but under $ 50,000	2,401	85,075,807	35,433	2,717	96,276,611	35,434
50,000 " 100,000	1,793	129,320,947	72,125	2,059	148,347,547	72,048
100,000 " 200,000	1,355	191,675,689	141,458	1,594	224,669,177	140,946
200,000 " 500,000	1,078	330,533,712	306,617	1,270	394,459,691	310,598
500,000 " 1,000,000	516	363,341,076	704,149	565	388,753,462	688,059
1,000,000 " 5,000,000	364	692,463,530	1,902,372	474	932,479,829	1,960,505
5,000,000 and over	56	575,592,599	10,278,439	92	951,921,695	10,346,974
Total	**22,541**	**2,482,209,130**	**110,119**	**22,708**	**3,247,803,438**	**143,024**

27.—Manufacturing Establishments, Classified according to Gross Value of Products, with Total Value of Products in each Class, by Provinces, 1926.

Value of Products. (000 omitted.)	Prince Edward Island.		Nova Scotia.		New Brunswick.	
	Establishments.	Production.	Establishments.	Production.	Establishments.	Production.
	No.	$	No.	$	No.	$
Under $ 25	265	1,609,911	887	6,006,083	661	5,164,313
$ 25—$ 50	15	529,179	102	3,546,485	95	3,165,546
50— 100	13	873,594	80	5,561,442	57	4,016,302
100— 200	5	607,855	49	7,862,378	42	6,053,776
200— 500	1	448,796	29	8,561,419	30	9,016,137
500— 1,000	–	–	5	3,684,863	14	9,685,331
1,000— 5,000	–	–	8	15,212,523	10	19,301,407
5,000 and over	–	–	3	23,070,449	1	17,719,427
Total	**299**	**4,069,335**	**1,163**	**73,505,642**	**910**	**74,122,239**
—	Quebec.		Ontario.		Manitoba.	
Under $ 25	5,059	37,327,053	4,912	41,603,789	417	3,827,679
$ 25—$ 50	668	23,398,847	1,377	49,221,381	99	3,538,905
50— 100	470	33,553,867	1,034	73,610,204	99	7,124,593
100— 200	357	50,500,318	850	118,240,957	76	10,817,905
200— 500	305	96,286,710	697	216,929,689	53	15,972,091
500— 1,000	136	93,133,078	303	209,606,913	20	13,280,817
1,000— 5,000	135	267,247,232	243	482,179,284	29	48,696,676
5,000 and over	34	303,853,719	41	486,541,287	4	29,459,786
Total	**7,164**	**905,300,824**	**9,457**	**1,677,933,504**	**797**	**132,718,452**
—	Saskatchewan.		Alberta.		British Columbia.	
Under $ 25	490	3,351,311	463	3,992,108	783	8,013,179
$ 25—$ 50	69	2,483,281	107	3,781,553	185	6,611,434
50— 100	59	4,350,118	72	5,099,654	175	14,157,773
100— 200	27	3,721,670	47	6,613,559	141	20,250,759
200— 500	15	4,340,399	26	7,486,870	114	35,417,580
500— 1,000	9	5,713,414	19	13,301,974	59	40,347,072
1,000— 5,000	3	6,001,797	13	30,384,543	33	63,456,367
5,000 and over	2	17,146,107	2	12,765,370	5	61,365,550
Total	**674**	**47,108,097**	**749**	**83,425,631**	**1,495**	**249,619,714**

Size of Establishments, as Measured by Number of Employees.—In Tables 28 and 29 the establishments reporting to the Census of Manufactures are classified by the number of their employees. In the comparative Table 28, it is shown that out of a total increase of 55,429 employees in our manufacturing industries between 1923 and 1926, 39,255, or 71 p.c., were in establishments with over 500 employees.

28.—Number of Establishments and of Employees in Canadian Manufactures, grouped according to the Number of Employees per Establishment, 1923 and 1926.

Employees per Establishment.	1923.			1926.		
	Establishments.	Employees.	Average Employed.	Establishments.	Employees.	Average Employed.
	No.	No.	No.	No.	No.	No.
Fewer than 5 persons	13,156	23,632	1·7	12,308	16,682	1·3
5 to 20 persons	5,310	53,852	10·1	5,777	55,606	9·6
21 " 50 "	2,093	67,408	32·2	2,332	74,444	31·9
51 " 100 "	1,031	73,449	71·2	1,097	77,224	70·3
101 " 200 "	566	79,737	140·8	677	94,685	139·8
201 " 500 "	374	115,585	309·0	360	111,196	308·0
501 and over	112	112,447	1,004·0	157	151,702	966·2
Total	**22,642**	**526,110**	**23·2**	**22,708**	**581,539**	**25·6**

29.—Number of Establishments and of Employees in Canadian Manufactures, by Provinces and Number of Employees per Establishment, 1926.

Provinces.	Under 5 Employees.	5–20.	21–50.	51–100.	101–200.	201–500.	501 and over.	Total
Prince Edward Island—								
Establishments	168	101	26	4	–	–	–	299
Employees	291	981	717	272	–	–	–	2,261
Average per establishment	1·7	9·7	27·5	68·0	–	–	–	7·5
Nova Scotia—								
Establishments	563	413	125	38	13	9	2	1,163
Employees	747	3,575	3,773	2,594	1,770	2,748	1,575	16,782
Average per establishment	1·3	8·6	30·1	68·2	136·1	305·3	787·5	14·4
New Brunswick—								
Establishments	396	339	107	35	18	12	3	910
Employees	783	2,996	3,095	2,008	2,308	4,431	2,053	17,674
Average per establishment	1·9	8·8	28·9	57·3	128·2	369·2	684·3	19·4
Quebec—								
Establishments	4,467	1,432	626	291	167	120	61	7,164
Employees	4,710	13,485	18,851	20,017	23,889	38,027	61,690	180,669
Average per establishment	1·1	9·4	30·1	68·7	143·0	316·8	1,011·3	25·2
Ontario—								
Establishments	4,751	2,525	1,057	517	356	171	80	9,457
Employees	7,310	25,279	35,391	37,257	49,767	51,300	74,049	280,353
Average per establishment	1·5	10·0	33·4	72·1	139·7	300·0	925·6	29·6
Manitoba—								
Establishments	396	217	96	49	23	12	4	797
Employees	610	2,201	3,035	3,308	3,370	3,413	5,264	21,201
Average per establishment	1·5	10·1	31·6	65·2	146·5	284·4	1,316·0	26·6
Saskatchewan—								
Establishments	515	109	30	14	3	3	–	674
Employees	719	1,032	988	1,014	439	712	–	4,904
Average per establishment	1·3	9·4	32·7	72·4	146·3	234·0	–	7·2
Alberta—								
Establishments	467	182	52	28	13	7	–	749
Employees	634	1,659	1,784	1,943	1,631	2,582	–	10,233
Average per establishment	1·3	9·1	34·3	69·3	125·4	368·8	–	13·6
British Columbia—								
Establishments	585	459	213	121	84	26	7	1,495
Employees	878	4,398	6,810	8,811	11,511	7,983	7,071	47,462
Average per establishment	1·5	9·5	31·9	72·8	137·0	307·0	1,010·1	31·7

Subsection 5.—Power and Fuel.

Power.—The power equipment installed in manufacturing establishments is a very good barometer of the industrial development of Canada, inasmuch as the production is dependent on the power equipment. Increases and decreases in productive capacity, measured in horse power, are not the result of temporary fluctuations in costs and values in the same manner as capital investments, values of products, etc. Power equipment will not reflect temporary depressions, but over a period of several years will indicate industrial growth or decline.

Central electric stations, which generate electricity for both lighting and power purposes, are included in Table **30** with the other groups of industries and are included also with the industries of each province. The note with Table **30** explains the duplications in power equipment involved where other manufacturing plants are operated by power purchased from central electric stations. Internal combustion engines include all gasolene engines, natural coal and producer gas engines and diesel and semi-diesel or other engines which produce power by burning the fuel in the cylinder.

Comparisons with the data for 1925 show an increase of 226,995 h.p. or 4·5 p.c. in 1926 in the total primary power equipment installed in manufacturing establishments, by far the largest increase being in the central electric stations, where the increase was over 200,000 h.p. The water power development of central electric

stations increased by 193,367 h.p. It was in the provinces with large water power developments that the greatest total increases were made, Quebec leading with an increase of 128,161 h.p., Manitoba coming second, with an increase of 61,612 h.p., and British Columbia third, with an increase of 43,250 h.p.

The rapid increase in the development of power in Canada and in its utilization in manufacturing industries is illustrated by the summary figures for the years 1921 to 1926 in Table **30**. The total primary power increased by 2,173,000 h.p. or 69 p.c. in the 5 years, while the total installation of electric motors increased 1,148,000 h.p. or 113 p.c. in the same time.

30.—Totals for Canada of Power Installed in the Manufacturing Industries, 1921-1926, with details by Provinces and Groups of Industries for 1926.

NOTE.—Total power equipment employed (Col. 8) is the sum of total primary power (Col. 4) and electric motors operated by purchased power (Col. 5). Since the power purchased (Col. 5) is generated by primary equipment already included in Col. 4, there is a duplication by the amounts of Col. 5 in the total power equipment figures of Col. 8 as applied to the totals for Canada and for each of the provinces. In the case of each of the groups of industries, however, since this purchased power is practically all generated by central electric stations, there is no duplication in the figures of total power equipment employed (Col. 8). The net growth in the power developed in Canada is shown in Col. 4 for the years 1921 to 1926.

Industries and groups.	Primary power.				Electric motors.			Total power equipment employed.
	Steam engines and turbines. Col. 1.	Internal combustion engines. Col. 2.	Hydraulic turbines and water wheels. Col. 3.	Total primary power. Col. 4.	Operated by purchased power. Col. 5.	Operated by power generated by establishment. Col. 6.	Total electric motors. Col. 7.	Col. 8.
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
Total 1921	**764,725**	**53,567**	**2,318,865**	**3,137,157**	–	–	**1,014,216**	–
Total 1922	**833,756**	**87,022**	**2,691,084**	**3,611,862**	–	–	**1,162,649**	–
Total 1923	**827,870**	**64,020**	**2,869,738**	**3,761,628**	**958,692**	**357,136**	**1,315,828**	**4,720,320**
Total 1924	**944,267**	**72,491**	**3,283,146**	**4,299,904**	**1,256,183**	**398,001**	**1,654,184**	**5,556,087**
Total 1925	**992,916**	**77,435**	**4,012,756**	**5,083,107**	**1,547,754**	**434,678**	**1,982,432**	**6,630,861**
Total 1926	**1,018,535**	**78,554**	**4,213,013**	**5,310,102**	**1,770,334**	**392,322**	**2,162,656**	**7,080,436**
PROVINCES, 1926.								
Prince Edward Island	2,857	1,492	1,406	5,755	285	314	599	6,040
Nova Scotia	102,736	3,694	52,947	159,377	20,652	38,746	59,398	180,029
New Brunswick	66,413	4,308	39,671	110,392	10,929	25,263	36,191	121,321
Quebec	182,257	8,424	1,803,381	1,994,062	630,195	97,660	727,855	2,624,257
Ontario	328,025	33,947	1,658,327	2,020,299	906,076	143,792	1,049,868	2,926,375
Manitoba	47,558	2,002	213,332	262,892	47,781	320	48,101	310,673
Saskatchewan	62,857	12,197	5	75,059	12,304	135	12,439	87,363
Alberta	78,937	4,929	33,584	117,450	22,881	4,319	27,200	140,331
British Columbia	146,895	7,561	410,360	564,816	119,231	81,774	201,005	684,047
GROUPS OF INDUSTRIES, 1926.								
Vegetable products	57,756	10,448	39,268	107,472	160,171	21,490	181,661	267,643
Animal products	26,181	5,964	1,756	33,901	62,250	3,667	65,917	96,151
Textiles and textile products	28,894	1,317	29,717	59,928	93,367	23,766	117,133	153,295
Wood and paper products	375,901	13,079	453,351	842,331	710,554	228,500	939,054	1,552,885
Iron and steel products	146,725	20,937	4,146	171,808	250,548	70,946	321,494	422,356
Non-ferrous metal products	20,000	211	68,860	89,071	139,799	29,097	168,896	228,870
Non-metallic mineral products	25,384	3,667	45	29,096	276,169	9,841	286,010	305,265
Chemicals and allied products	15,966	287	6,470	22,723	40,912	3,506	44,418	63,635
Miscellaneous industries	7,351	218	15	7,584	36,564	1,509	38,073	44,148
Central electric stations	314,377	22,426	3,609,385	3,946,188	–	–	–	3,946,188

Fuel.—The fuel used in industrial establishments in 1926 included 6,409,227 tons of bituminous coal, valued at $36,723,359, constituting 61·5 p.c. of the total fuel cost. The other chief fuels in order of value were fuel oil, comprising 12·3

p.c., gas (principally natural gas) 7·1 p.c., coke 7·0 p.c., wood 4·4 p.c. and anthracite coal 3·8 p.c. Out of a fuel account of nearly $60,000,000, Ontario expended $29,000,000 or 49·2 p.c. of the total. The manufacturing concerns of Quebec expended $16,300,000, those of British Columbia $4,400,000 and those of Nova Scotia nearly $2,600,000.

The groups of industry in which fuel was most extensively used in 1926 were wood and paper, $14,877,000, non-metallic minerals, $11,979,000, iron and steel, $9,309,000, and vegetable products, $7,032,000. Fuel is used quite generally throughout the industrial field for the generation of power by means of internal combustion and steam engines. The principal industries where fuel is used as a material that enters into the actual composition of the product are the manufactures of coke and gas. The most important industries where heat is applied directly to materials to transform them or to facilitate their manipulation are foundries and machine shops, blast-furnaces and steel mills, smelting plants, brick, tile, lime and cement-making, petroleum-refining and the glass industry.

The total annual expenditure on fuel increased by $8,055,000 or 15·6 p.c. in the 5 years from 1921 to 1926, covered by the summary figures in Table 31. The fuels which have shown the greatest proportionate increase are gas, coke and oil.

31.—Total Fuel used in the Manufacturing Industries of Canada, 1921-1926, with details by Provinces and Groups, 1926.

Provinces and Groups.	Bituminous coal.		Anthracite coal.	Coke.	Oil.	Wood.	Gas.	Total.[1]
	Quantity.	Value.						
	Tons.	$	$	$	$	$	$	$
Total, 1921	**4,103,071**	**34,752,681**	**2,915,752**	**2,497,400**	**5,417,800**	**–**	**–**	**51,640,912**
Total, 1922	**4,101,463**	**29,914,585**	**3,616,185**	**3,299,016**	**5,649,071**	**2,085,444**	**1,616,802**	**48,920,505**
Total, 1923	**5,338,446**	**38,283,135**	**4,614,239**	**3,238,257**	**6,241,692**	**2,514,157**	**1,904,058**	**58,736,938**
Total, 1924	**5,518,255**	**34,438,554**	**4,642,654**	**2,250,232**	**5,780,752**	**2,595,064**	**4,711,188**	**57,068,214**
Total, 1925	**5,902,197**	**34,034,531**	**2,564,489**	**5,045,239**	**7,246,961**	**2,700,979**	**3,570,180**	**57,818,701**
Total, 1926	**6,409,227**	**36,723,359**	**2,266,935**	**4,176,584**	**7,371,769**	**2,645,505**	**4,233,073**	**59,695,997**
PROVINCES, 1926.								
Prince Edward Island	10,378	75,729	1,780	4,573	11,353	16,101	–	111,057
Nova Scotia	241,817	1,322,943	24,913	66,085	594,297	72,883	462,419	2,589,290
New Brunswick	297,767	1,663,634	17,913	12,610	42,354	194,717	15,614	1,964,817
Quebec	1,691,956	10,868,778	1,257,170	302,524	2,421,713	549,080	388,719	16,333,447
Ontario	3,190,879	18,820,293	890,996	2,572,716	2,413,320	1,209,338	2,721,562	29,392,012
Manitoba	172,178	1,036,272	27,880	57,593	223,511	173,923	91,808	1,888,580
Saskatchewan	234,003	716,981	14,728	11,961	402,928	73,590	86,678	1,606,284
Alberta	306,239	792,620	17,947	10,051	64,826	29,108	293,753	1,383,006
British Columbia and Yukon	264,010	1,426,109	13,608	1,138,471	1,197,467	326,765	172,520	4,427,504
GROUPS OF INDUSTRIES, 1926.								
Vegetable products	673,893	3,806,140	479,948	424,906	845,221	507,545	496,949	7,031,894
Animal products	368,235	2,309,998	90,103	56,966	166,683	398,337	54,254	3,675,728
Textiles and textile products	432,453	2,863,866	223,876	49,292	93,538	54,050	71,170	3,540,333
Wood and paper products	1,823,458	11,611,177	931,811	17,900	1,059,321	910,906	121,196	14,876,842
Iron and steel products	856,662	4,685,847	273,583	493,008	1,924,676	90,959	1,444,974	9,308,886
Non-ferrous metal products	253,426	1,400,440	52,870	2,534,943	620,035	43,813	186,866	4,874,982
Non-metallic mineral products	1,150,629	6,607,713	80,848	471,245	2,336,913	536,788	1,781,901	11,978,992
Chemicals and allied products	245,979	1,394,917	111,880	102,278	82,771	17,416	25,899	1,810,118
Miscellaneous industries	48,166	321,550	22,016	26,030	33,218	9,899	18,636	460,840
Central electric stations	556,323	1,721,711	[2]	16	209,393	75,792	31,228	2,137,382

[1]Includes other kinds of fuel which in 1926 were as follows:—lignite coal, $578,651; gasolene, $860,303; and all other fuels, $839,788. [2]Included with bituminous coal.

Section 5.—Manufacturing Industries in Cities and Towns.

The prosperity of most of the cities and towns of Canada, especially in the East, is intimately connected with their manufacturing industries, which provide employment for a large proportion of their gainfully employed population. In the West, the cities are more largely distributing centres, though manufactures are rapidly increasing there also.

Table 32, indicating the extent to which the manufacturing industries of Canada are concentrated in urban centres, shows by provinces the proportion of the gross manufacturing production which is produced in cities and towns having a gross production of over $1,000,000 each. In the more highly industrialized provinces of Ontario and Quebec such cities and towns account for over 90 p.c. of the total, while in British Columbia and Prince Edward Island, where sawmilling, fish-packing and dairying are leading industries, the proportion falls to less than 50 p.c.

The seven chief manufacturing cities of Canada in 1926, in the order named, were Montreal, Toronto, Hamilton, Winnipeg, Vancouver, Ottawa and Oshawa, with a gross production of over $50,000,000 each in 1926. Statistics showing the trend of production in these cities during the last 6 years for which the figures are available are given in Table 33. It will be noticed that the fluctuations in production in different years are proportionately greatest in Hamilton, perhaps because the industries of Hamilton are not so diversified as those of Montreal and Toronto.

According to the census of 1921, Hamilton is proportionately the most largely dependent of these cities upon manufacturing industries. About 45 p.c. of its gainfully employed population were employed in manufacturing industries, as compared with 30 p.c. in Montreal and Toronto, and with 17 p.c. in Winnipeg and Vancouver.

Eighteen other important cities with a gross production of manufactured goods of between $20,000,000 and $50,000,000 each in 1926 were as follows, in descending order of the value of their products:—Ford, Three Rivers, Kitchener, London, Calgary, Quebec, Niagara Falls, Peterborough, New Toronto, Brantford, Saint John, Windsor, Shawinigan Falls, Sarnia, Edmonton, St. Boniface, Sault Ste. Marie and Walkerville. Statistics of the manufactures of all cities and towns h a gross production of $100,000 and over and with three or more manufacturing establishments are given for 1926 in Table 34.

32.—Cities and Towns with a Gross Manufacturing Production of over $1,000,000 each, Number of Establishments and Total Gross Production in such Cities and Towns as a percentage of the Grand Total, by Provinces, 1926.

Provinces.	Cities and towns with a gross production of over $1,000,000 each.	Establishments reporting in cities and towns producing over $1,000,000 each.	Total production in cities and towns producing over $1,000,000 each.	Total production in each province.	Production in cities and towns as a percentage of total production in each province.
	No.	No.	$	$	p.c.
Prince Edward Island	1	30	1,687,519	4,069,335	41·44
Nova Scotia	8	251	57,431,922	73,505,642	78·13
New Brunswick	9	280	53,174,123	74,122,239	71·74
Quebec	41	2,663	820,628,302	905,300,824	90·64
Ontario	114	5,782	1,528,208,909	1,677,933,504	91·10
Manitoba	6	535	120,198,220	132,718,452	90·56
Saskatchewan	4	159	38,030,532	47,108,097	80·73
Alberta	4	319	70,458,825	83,425,631	84·46
British Columbia	10	805	121,444,305	249,619,714	48·65
Canada	**197**	**10,824**	**2,811,262,657**	**3,247,803,438**	**86·56**

33.—Principal Statistics of the Manufacturing Industries of the Seven Leading Manufacturing Cities of Canada, 1921-1926.

Cities.		Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Value of Products.
		No.	$	No.	$	$	$
Montreal	1921	1,326	437,159,896	74,320	81,709,683	212,796,716	413,475,166
	1922	1,468	456,898,909	79,996	83,973,965	200,918,219	406,846,230
	1923	1,451	473,624,425	85,603	93,943,718	226,198,441	459,254,656
	1924	1,560	469,354,640	86,648	94,725,516	224,134,382	444,852,084
	1925	1,666	523,125,905	91,624	99,755,986	235,304,377	467,055,393
	1926	1,729	542,412,908	95,904	109,147,450	275,322,256	555,269,114
Toronto	1921	1,706	370,426,285	66,708	84,147,050	192,588,233	371,090,034
	1922	1,811	392,469,184	78,833	92,930,846	205,568,765	394,065,052
	1923	1,933	389,772,678	82,267	97,417,033	210,786,422	409,829,557
	1924	1,928	410,244,068	80,001	96,554,310	213,493,889	401,367,127
	1925	1,957	429,165,022	82,728	100,769,782	246,399,340	447,098,824
	1926	2,013	451,233,965	86,439	107,734,568	270,290,114	489,522,114
Hamilton	1921	399	142,006,725	28,192	28,062,403	53,074,110	109,803,883
	1922	437	143,168,098	23,476	26,256,146	50,844,910	100,280,131
	1923	436	170,378,119	25,797	31,399,136	77,140,899	141,097,732
	1924	427	170,993,755	23,772	28,513,251	56,884,010	118,591,000
	1925	414	166,284,301	23,629	27,987,009	62,110,974	122,305,950
	1926	417	172,345,587	27,087	33,244,170	74,066,846	146,037,029
Winnipeg	1921	419	67,354,844	11,046	15,521,375	39,701,665	75,180,039
	1922	436	46,251,208	10,679	13,858,116	36,766,668	66,925,392
	1923	425	70,872,528	11,596	14,782,426	38,172,282	70,647,027
	1924	411	87,489,506	11,934	15,395,262	40,837,275	74,755,670
	1925	409	89,688,323	14,346	18,390,797	42,388,504	79,614,829
	1926	446	96,801,995	15,469	20,086,607	46,501,703	87,686,243
Vancouver	1921	441	72,065,459	10,438	12,446,231	35,287,999	65,035,973
	1922	485	75,030,953	10,598	10,579,482	35,507,418	63,172,964
	1923	507	80,053,568	11,400	13,815,995	40,518,790	71,221,905
	1924	498	93,699,451	13,417	16,920,959	43,691,647	77,860,759
	1925	507	102,105,028	13,334	16,384,973	42,020,970	75,823,721
	1926	523	106,624,727	14,781	18,347,299	46,120,382	84,831,423
Ottawa	1921	181	38,184,743	5,841	7,254,469	27,854,285	41,949,894
	1922	203	38,530,758	6,667	7,742,794	34,581,220	49,202,686
	1923	197	43,513,709	7,058	8,454,415	25,706,305	40,965,955
	1924	204	48,347,550	7,379	8,435,969	15,905,187	30,826,930
	1925	192	48,777,659	7,110	8,554,138	15,932,660	31,303,494
	1926	207	52,310,095	7,593	9,028,482	43,589,670	59,491,881
Oshawa	1921	28	17,444,828	2,896	3,418,396	18,990,616	27,801,398
	1922	34	20,658,430	4,052	4,883,478	28,535,248	40,131,834
	1923	34	23,978,144	5,019	6,223,833	33,338,313	43,876,305
	1924	35	21,311,534	4,554	5,301,282	25,996,264	37,918,669
	1925	34	21,832,973	4,987	6,269,918	30,345,887	47,529,284
	1926	33	23,935,711	5,611	7,391,465	34,447,446	54,571,595

34.—Statistics of Manufactures of Municipalities with a Gross Production of $100,000 or over, and with three or more Establishments, 1926.

Cities and Towns.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Value of Products.
	No.	$	No.	$	$	$
Prince Edward Island—						
Charlottetown	30	1,787,554	453	429,418	990,625	1,687,519
Summerside	12	234,768	51	39,792	77,459	186,501
Montague	5	97,531	45	32,234	19,225	132,013
Nova Scotia—						
Dartmouth	16	17,088,662	946	1,146,696	11,549,283	17,485,066
Sydney	31	30,942,920	2,053	2,274,089	7,540,799	16,087,552
Halifax	99	28,786,350	3,287	3,411,519	4,867,968	12,224,912
Truro	27	4,015,711	778	629,748	1,533,646	3,132,371
New Glasgow	29	6,939,652	611	635,381	1,485,796	2,771,403
Yarmouth	24	2,770,752	580	507,025	1,234,783	2,522,011
Amherst	21	4,440,432	735	701,936	1,067,174	2,157,314

34.—Statistics of Manufactures of Municipalities with a Gross Production of $100,000 or over, and with three or more Establishments, 1926—continued.

Cities and Towns.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Value of Products.
	No.	$	No.	$	$	$
Nova Scotia—concluded.						
Canso	4	437,735	245	154,406	565,070	1,051,293
Windsor	14	1,889,793	217	144,030	399,638	716,575
Pictou	14	436,935	305	122,222	284,286	497,572
Port Hawkesbury	4	755,794	127	117,328	287,539	487,248
Liverpool	9	2,992,002	177	109,197	223,568	418,594
Middleton	8	181,959	32	27,302	337,242	415,705
Stellarton	9	568,769	45	49,499	132,153	407,494
Bridgewater	17	796,547	173	112,622	171,229	387,197
Oxford	10	361,130	139	94,864	214,933	373,922
Lockport	5	421,845	110	68,874	226,925	365,264
Lunenburg	13	589,195	212	150,550	145,165	348,146
Bridgetown	11	282,177	148	94,440	181,437	302,726
North Sydney	14	220,790	113	86,936	145,462	265,551
Digby	7	199,046	71	55,499	189,663	264,812
Glace Bay	8	260,391	56	62,535	61,324	245,901
Clark's Harbour	8	53,399	72	18,112	169,151	202,321
Wolfville	6	129,990	31	29,847	127,015	200,329
Shelburne	12	222,737	92	64,578	81,577	173,259
Mahone Bay	11	119,012	126	61,147	72,066	152,907
Stewiacke	3	125,884	63	39,803	62,767	119,566
Antigonish	6	128,436	30	27,134	64,650	119,496
Parrsboro	9	119,215	49	24,679	41,678	102,797
New Brunswick—						
Saint John	125	32,192,490	3,394	3,453,222	20,984,500	29,310,292
Moncton	37	7,265,531	2,133	2,410,192	2,776,943	5,738,911
Bathurst	15	7,928,401	602	664,202	1,354,394	3,633,813
Edmundston	11	5,714,505	404	490,975	1,546,655	3,447,485
St. Stephen	15	2,598,621	705	655,806	1,830,987	3,205,063
Fredericton	34	2,884,409	792	702,732	1,258,594	2,856,615
Chatham	13	3,270,441	647	435,232	1,105,326	1,915,624
Campbellton	16	2,913,176	487	358,848	1,044,250	1,876,040
Newcastle	14	2,767,218	381	286,600	764,677	1,190,280
Sackville	12	1,424,033	383	372,044	364,700	921,338
Sussex	15	393,710	177	112,284	387,713	697,495
Grand Falls	11	598,427	267	176,904	263,350	558,634
Dalhousie	3	1,050,820	165	107,874	405,442	556,099
St. George	4	551,000	130	142,396	101,456	386,412
Woodstock	20	562,457	143	103,456	96,431	337,435
Hartland	3	239,499	52	48,614	104,867	153,392
Quebec—						
Montreal	1,729	542,412,908	95,904	109,147,450	275,322,256	555,269,114
Three Rivers	54	60,560,461	6,488	7,518,627	18,272,720	41,888,163
Quebec	255	43,872,301	9,032	7,709,742	13,982,090	32,347,175
Shawinigan Falls	20	86,745,813	3,313	4,065,427	8,070,871	26,310,823
Sherbrooke	70	21,995,179	4,121	4,089,749	7,757,624	15,465,596
Hull	38	14,340,102	2,778	2,805,357	6,063,104	12,234,012
Lachine	25	16,115,714	2,152	3,330,223	4,888,310	10,731,995
Valleyfield	21	10,573,730	2,848	2,283,963	3,247,495	10,625,938
Grand'Mère	11	52,353,495	1,314	1,997,236	2,905,487	9,576,949
Granby	28	8,531,416	2,251	1,963,831	4,111,930	9,166,010
Magog	11	5,882,702	1,439	876,543	6,591,383	8,334,814
St. Hyacinthe	47	6,770,249	2,376	1,629,112	4,072,000	7,294,215
St. Johns	28	7,886,368	2,277	2,195,837	3,366,559	6,667,750
St. Jérôme	25	5,732,434	1,741	1,437,258	3,073,095	5,967,026
East Angus	5	15,270,297	778	929,957	2,622,871	5,108,473
Beloeil	6	4,234,514	450	665,969	2,677,522	4,448,239
La Tuque	10	8,004,046	577	839,582	1,937,755	4,353,917
Port Alfred	3	20,128,866	636	922,117	1,364,558	4,078,254
Drummondville	20	7,254,485	1,235	918,549	2,304,877	4,064,496
Victoriaville	21	4,171,398	1,043	849,965	1,445,310	3,867,086
Donnaconna	3	10,140,328	520	889,626	1,545,748	3,762,329
St. Joseph d'Alma	5	10,363,900	518	810,379	973,818	3,520,186
Chicoutimi	19	10,480,419	790	636,174	1,847,000	3,445,198
Verdun	9	1,199,520	738	538,282	1,536,224	3,070,771
Longueuil	7	2,847,624	413	631,637	207,186	2,845,275
Buckingham	14	2,557,753	411	457,985	1,034,766	2,267,299
Sorel	19	3,035,292	1,442	1,073,381	697,832	2,215,800
Beauharnois	8	4,276,740	471	461,060	655,766	2,204,349
Chandler	4	2,841,050	377	376,295	827,126	2,007,549
Windsor	7	3,525,540	515	625,674	778,232	1,975,088
Joliette	37	1,596,197	505	379,350	947,474	1,873,483

34.—Statistics of Manufactures of Municipalities with a Gross Production of $100,000 or over, and with three or more Establishments, 1926—continued.

Cities and Towns.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Value of Products.
Quebec—concluded.	No.	$	No.	$	$	$
Lauzon	6	3,812,867	457	610,040	445,329	1,804,997
Coaticook	24	1,787,048	653	410,941	965,613	1,798,941
Berthier	7	3,783,572	365	292,652	569,956	1,609,662
Marieville	9	981,768	388	330,800	821,111	1,408,460
Rock Island	17	2,089,888	385	335,665	658,869	1,346,895
Jonquière	9	1,557,379	224	318,219	550,390	1,329,318
Cowansville	10	1,876,868	426	376,713	525,455	1,165,194
Laprairie	10	6,897,953	373	402,870	52,958	1,110,760
St. Rémi	9	518,456	130	89,167	813,937	1,038,115
Bromptonville	3	407,029	303	251,456	800,744	1,028,588
Asbestos	7	1,254,891	144	157,867	510,478	990,740
St. Laurent	7	901,670	323	388,355	380,285	971,995
Louiseville	9	1,000,914	410	222,341	549,922	934,049
Piessisville	14	1,320,001	301	231,767	447,757	882,203
Charlemagne	4	1,137,651	95	35,817	800,495	878,708
Montmagny	20	2,711,038	298	230,202	288,045	861,397
Ste. Thérèse	11	1,046,076	252	201,735	336,174	828,728
Portneuf	9	975,448	144	133,733	447,310	827,205
Farnham	13	564,392	311	198,977	435,722	824,971
St. Raymond	13	868,813	244	149,934	300,341	784,026
Rimouski	9	2,521,906	304	285,698	378,440	774,509
Pont Rouge	9	896,505	119	114,858	390,471	707,766
Lac au Saumon	3	2,052,109	215	112,838	372,078	633,316
Lévis	16	738,262	235	162,824	273,768	614,075
Bedford	6	621,562	303	23,436	66,835	609,311
Loretteville	14	699,110	271	169,397	328,364	596,668
Westmount	4	1,284,986	201	227,795	71,268	573,769
Amos	8	461,799	225	121,187	320,796	560,318
Terrebonne	9	914,160	272	220,177	237,898	549,493
Macamic	10	522,336	158	95,481	375,978	546,815
Warwick	11	525,904	212	159,267	300,140	535,053
Calumet	4	692,540	103	116,357	372,116	527,697
Contrecœur	3	272,778	174	134,951	305,018	456,502
Rivière du Loup	16	1,746,345	255	277,407	157,408	442,846
Danville	10	772,502	149	107,634	225,944	408,643
Beebe Plains	8	207,155	133	65,783	239,574	381,930
Lennoxville	5	283,333	82	82,937	142,010	358,833
Actonvale	10	181,245	154	91,372	184,905	324,730
St. Lambert	6	428,167	13	126,703	71,051	306,160
Lachute	8	387,988	73	45,488	150,948	289,928
Disraeli	4	1,327,922	205	144,422	87,016	278,206
Waterloo	11	228,923	106	79,627	134,782	261,306
Shawville	7	72,835	30	21,519	197,990	255,553
Ste. Agathe des Monts	8	431,991	119	69,980	148,914	255,177
St. Tite	15	163,318	100	58,609	152,387	255,007
Sutton	10	217,372	75	55,973	147,503	246,710
Thetford Mines	12	514,392	79	71,205	79,226	231,910
Huntingdon	7	144,730	46	48,765	141,235	227,475
St. Césaire	13	132,545	84	26,251	152,622	208,923
Trois Pistoles	13	117,350	75	53,025	111,649	197,573
Mont Laurier	9	212,318	59	29,175	126,027	191,150
Roberval	11	261,886	100	46,936	94,523	181,274
St. Marc des Carrières	7	14,800	72	72,952	13,757	180,602
Ste. Geneviève	7	157,539	62	43,250	101,943	180,460
Iberville	8	173,507	88	59,078	74,747	173,290
Beauport	4	63,369	34	34,664	91,573	162,478
Val Brillant	4	11,715	70	45,838	92,524	147,621
Cookshire	6	108,999	62	25,342	56,839	146,324
Ormstown	7	117,835	24	24,540	96,684	133,014
St. Jacques	9	57,950	27	13,585	94,787	130,293
St. Ours	13	88,771	56	18,093	87,643	127,926
Ayers Cliff	5	115,600	45	35,839	69,518	124,380
Upton	8	84,225	19	10,375	99,143	123,703
St. Pie	9	101,628	60	33,221	75,304	122,260
Nicolet	8	193,346	65	34,420	53,992	117,043
Campbell's Bay	5	188,451	54	38,587	75,518	115,916
Wakefield	3	49,504	8	6,647	72,497	111,670
Pointe aux Trembles	4	209,818	38	47,084	48,658	109,660
Beauceville	8	189,210	43	36,220	57,458	108,625
St. Cyrille	11	105,400	32	7,832	86,342	105,064
Gifford	3	108,989	21	16,728	65,085	104,550
Roxton Falls	5	46,604	6	3,954	87,183	103,455
Compton	3	99,376	126	72,863	30,040	102,875
West Shefford	3	15,337	4	4,250	85,538	102,120

34.—Statistics of Manufactures of Municipalities with a Gross Production of $100,000 or over, and with three or more Establishments, 1926—continued.

Cities and Towns.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Value of Products.
Ontario—	No.	$	No.	$	$	$
Toronto	2,013	451,233,965	86,439	107,734,568	270,290,114	489,522,114
Hamilton	417	172,345,587	27,087	33,244,170	74,066,846	146,037,029
Ottawa	207	52,310,095	7,593	9,028,482	43,589,670	59,491,881
Oshawa	33	23,935,711	5,611	7,391,465	34,447,446	54,571,595
Ford	12	47,307,372	6,562	11,834,197	27,477,796	49,979,343
Kitchener	136	35,764,556	7,211	7,724,475	19,843,540	38,598,932
London	226	42,231,091	9,074	10,106,662	16,553,295	37,607,759
Niagara Falls	62	37,832,753	2,664	3,776,058	15,416,463	32,175,880
Peterborough	77	25,803,768	4,683	6,780,101	20,095,396	31,179,402
New Toronto	10	19,758,151	2,922	3,990,041	22,314,515	29,954,144
Brantford	99	33,846,155	6,621	7,423,841	15,165,072	29,252,939
Windsor	131	23,615,327	3,697	5,482,999	13,614,352	26,756,806
Sarnia	41	23,533,120	2,766	3,930,224	16,232,823	25,807,772
Sault Ste. Marie	45	61,394,554	2,119	3,740,663	10,148,398	21,045,213
Walkerville	53	23,151,956	2,792	4,268,725	11,635,974	20,521,760
Port Colborne	14	10,435,547	709	976,156	14,617,680	17,402,352
Welland	37	26,615,911	2,781	3,115,134	9,357,079	17,310,594
Guelph	91	15,945,139	3,776	3,980,943	8,040,878	15,708,212
Keewatin	5	6,032,419	399	546,242	14,079,747	15,606,098
St. Catharines	90	18,130,475	3,510	3,991,903	6,321,718	14,079,254
Galt	75	15,041,488	3,424	3,773,201	6,748,292	13,731,336
Chatham	56	13,989,243	2,202	5,652,929	8,939,818	13,493,631
Thorold	16	23,031,989	1,367	2,246,054	4,862,066	13,171,024
Leaside	4	10,705,698	1,300	1,998,915	7,665,353	12,892,341
Stratford	64	12,059,599	3,015	3,551,923	6,128,285	11,806,553
Fort William	38	19,871,018	1,078	1,460,253	6,590,474	11,579,435
Cornwall	51	16,184,992	3,294	2,916,333	4,646,647	11,128,814
Iroquois Falls	3	30,088,854	996	1,944,872	3,181,749	10,478,388
Kenora	13	13,211,645	578	784,331	6,061,319	9,282,315
Woodstock	61	10,145,045	2,054	2,109,493	4,450,464	8,375,226
Kingston	62	13,121,990	1,776	1,914,174	3,570,608	7,220,633
Brockville	32	5,146,687	752	789,557	5,045,769	6,983,155
Wallaceburg	16	6,796,028	1,121	1,336,562	4,022,357	6,857,998
Fort Frances	10	6,842,653	677	1,033,402	3,033,656	6,533,351
Waterloo	37	11,051,251	1,321	1,441,016	2,998,756	6,381,986
Espanola	4	19,580,650	736	1,288,090	2,721,238	6,294,608
Goderich	18	1,950,439	317	351,224	5,153,694	6,042,277
Port Arthur	22	12,344,142	896	1,164,674	1,695,888	5,437,227
Preston	32	5,414,348	1,439	1,576,388	2,388,494	5,236,801
Hawkesbury	13	6,614,322	768	830,724	2,595,246	5,218,170
Midland	17	4,675,859	841	1,855,662	3,534,014	5,037,612
St. Thomas	49	3,990,578	1,032	1,046,022	2,818,289	4,976,973
Simcoe	35	3,989,965	765	563,769	2,914,296	4,819,649
Owen Sound	48	7,666,324	1,609	1,596,357	2,083,212	4,800,206
Huntsville	14	5,131,269	535	514,819	3,132,753	4,553,308
Belleville	50	7,598,254	1,126	1,177,927	1,140,866	4,515,740
Pembroke	34	6,772,392	1,152	869,605	2,913,738	4,409,275
Paris	21	5,663,803	1,211	1,083,648	2,304,445	4,357,066
Leamington	14	2,453,268	405	409,338	1,596,794	4,003,126
Bowmanville	17	3,497,603	575	559,683	2,243,053	3,763,200
Hespeler	14	6,314,107	1,156	1,029,500	1,923,514	3,727,727
Ingersoll	31	4,389,032	675	700,921	2,328,966	3,655,534
St. Marys	23	4,408,507	492	565,708	1,860,058	3,620,752
Orillia	33	5,535,771	1,005	936,470	1,854,960	3,508,977
Renfrew	20	4,448,313	704	810,218	1,714,260	3,375,277
Fergus	13	2,415,156	541	613,640	1,302,402	3,252,084
Cardinal	8	3,066,982	309	420,930	2,144,204	3,246,932
Newmarket	16	2,092,064	510	576,727	1,457,840	3,113,206
Merritton	9	3,711,463	486	713,348	1,313,670	3,074,747
Chippawa	4	852,398	177	263,636	616,583	2,963,054
Acton	14	2,386,390	419	379,295	2,058,428	2,891,158
Sturgeon Falls	9	201,072	500	813,655	1,939,838	2,853,631
Aurora	8	1,176,842	407	399,212	1,857,189	2,763,111
Brampton	20	2,064,414	787	783,966	1,214,664	2,626,780
Petrolia	17	2,485,580	202	240,554	1,967,640	2,609,146
Elmira	15	2,091,932	590	556,836	1,243,178	2,591,183
Perth	20	3,617,566	623	685,801	998,738	2,480,226
Weston	8	3,477,706	683	780,867	1,096,622	2,418,145
Cobourg	29	2,331,346	416	399,036	935,383	2,357,862
Dundas	19	4,527,730	572	679,635	1,078,429	2,332,763
Georgetown	18	2,355,377	452	465,776	1,344,101	2,323,419
Carleton Place	20	2,803,585	661	654,233	1,021,706	2,313,653
Smith's Falls	23	3,698,168	659	701,537	1,168,990	2,231,270
Amherstburg	10	8,427,816	243	389,372	355,078	2,207,185

34.—Statistics of Manufactures of Municipalities with a Gross Production of $100,000 or over, and with three or more Establishments, 1926—continued.

Cities and Towns.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Value of Products.
	No.	$	No.	$	$	$
Ontario—continued.						
Aylmer	10	1,663,671	174	176,608	1,233,727	2,173,076
Kapuskasing	4	10,077,156	321	561,026	623,575	2,147,608
Port Hope	30	2,863,478	578	682,319	694,914	2,146,853
Sudbury	26	3,630,233	416	455,510	1,122,215	2,127,168
Lindsay	39	1,956,382	515	455,564	1,244,302	2,118,539
Campbellford	26	1,980,368	414	395,094	1,082,193	2,102,475
Hanover	14	2,734,623	567	567,463	1,111,347	2,097,558
Sandwich	10	3,238,782	365	609,837	505,075	2,074,526
Tillsonburg	22	1,745,130	503	481,079	1,272,816	2,072,853
Gananoque	24	2,644,128	538	621,397	885,676	2,035,144
Caledonia	13	810,791	269	330,437	1,298,786	2,015,049
Dunnville	19	2,131,488	608	592,400	1,024,816	2,004,838
Arnprior	16	4,983,274	482	509,263	1,028,394	1,931,306
Trenton	27	2,279,906	452	366,943	1,176,693	1,885,545
Bridgeburg	20	1,559,557	184	240,096	904,690	1,883,548
Oakville	18	1,307,592	324	385,372	1,094,606	1,863,930
Port Credit	4	1,958,400	212	226,609	1,137,286	1,854,616
Chesterville	7	993,702	139	166,265	1,298,203	1,829,632
Kincardine	14	1,185,882	401	349,068	655,134	1,643,684
Strathroy	20	1,462,864	325	260,357	919,545	1,599,740
Milton	14	2,977,262	404	398,432	572,917	1,599,156
Napanee	20	1,185,692	284	254,374	937,309	1,590,832
Barrie	21	1,460,319	287	293,156	982,493	1,576,726
Timmins	20	13,273,089	202	222,538	104,297	1,572,598
Listowel	19	768,262	347	208,403	755,640	1,495,483
Port Dalhousie	6	1,022,624	462	401,132	618,156	1,485,009
Tavistock	12	436,460	149	128,017	1,084,121	1,390,681
Almonte	20	1,540,712	416	352,171	706,637	1,365,448
Meaford	15	1,410,185	319	282,274	856,880	1,349,044
Cache Bay	3	1,139,138	208	235,794	621,769	1,248,666
Penetanguishene	14	1,698,010	356	371,791	624,730	1,188,289
Cobalt	7	13,353,335	152	246,836	43,860	1,158,588
Collingwood	27	4,440,831	297	316,680	572,927	1,145,230
Dryden	7	4,609,343	240	315,276	367,406	1,140,904
Picton	25	1,308,218	223	125,396	662,493	1,118,431
Grimsby	14	1,190,185	388	282,114	520,782	1,100,155
Walkerton	20	1,325,378	300	245,082	638,612	1,080,339
Wingham	18	900,211	244	210,131	612,932	1,035,325
Thessalon	7	827,891	218	216,854	354,035	1,031,133
Kingsville	15	1,064,916	152	111,773	761,272	1,009,169
Rockland	6	1,573,864	337	286,311	610,261	1,000,836
Chesley	11	898,718	321	296,585	494,656	976,489
Frankford	8	1,439,682	187	162,078	518,753	962,868
Tilbury	8	780,665	213	188,393	455,409	957,635
Prescott	17	985,257	221	198,471	435,138	954,873
Ayr	7	573,156	99	94,587	534,790	946,381
Elora	11	829,131	289	258,805	368,232	927,499
Norwich	17	725,779	143	129,808	653,423	925,974
Clinton	20	724,255	199	171,852	534,486	924,304
New Liskeard	14	999,744	213	261,037	533,468	912,304
Bloomfield	11	855,556	134	72,243	489,186	822,438
Alexandria	21	712,354	159	131,049	478,367	774,065
Whitby	7	700,039	224	234,010	349,032	756,128
Exeter	15	624,704	158	82,884	451,475	754,826
Mount Forest	17	612,125	179	130,285	461,750	752,239
New Hamburg	12	851,960	216	179,011	393,474	749,297
Durham	10	629,962	200	171,217	324,362	673,623
West Lorne	6	643,301	120	90,781	467,669	660,525
Mitchell	12	636,881	125	122,059	336,630	598,327
Waterford	8	620,720	125	70,838	362,620	595,134
Orangeville	12	652,652	143	91,373	397,395	591,829
Humberstone	5	508,880	121	115,636	324,101	587,657
Forest	11	563,209	119	87,827	336,003	583,460
Southampton	5	704,285	183	177,506	212,565	549,428
Bracebridge	16	1,524,208	210	167,145	317,676	526,686
Brighton	17	699,772	207	63,015	283,692	526,170
Jarvis	6	132,867	27	25,050	431,250	522,835
Burk's Falls	6	524,459	111	126,975	269,802	510,133
Tweed	13	289,914	128	96,039	323,739	506,332
Port Elgin	10	561,901	160	161,090	250,713	504,562
Wiarton	14	540,251	114	95,866	293,924	501,248
Streetsville	8	212,297	80	104,006	206,643	493,017
Lucknow	15	338,663	88	65,640	338,503	471,293

34.—Statistics of Manufactures of Municipalities with a Gross Production of $100,000 or over, and with three or more Establishments, 1926—continued.

Cities and Towns.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Value of Products.
	No.	$	No.	$	$	$
Ontario—continued.						
Delhi	6	641,042	59	49,020	325,417	467,602
Dresden	12	446,114	95	61,993	269,151	461,189
Wellington	6	488,138	113	46,339	242,355	453,990
Mimico	8	901,472	125	176,946	18,422	439,754
Gravenhurst	9	537,273	188	183,664	90,505	439,462
Stirling	15	116,105	53	38,490	355,654	439,234
Harriston	10	372,569	87	79,341	267,222	437,307
Palmerston	8	159,178	30	27,058	344,961	422,235
Dutton	11	141,578	41	25,601	324,336	411,307
Burlington	6	431,679	81	82,216	264,525	410,154
Omemee	5	222,641	87	77,649	310,264	408,816
Seaforth	13	262,049	93	71,520	196,331	405,124
Teeswater	12	300,987	82	66,126	225,902	396,309
Woodbridge	6	328,840	86	78,867	244,692	388,525
Ridgetown	16	529,864	81	58,339	203,650	381,226
Victoria Harbour	3	1,327,445	120	109,749	215,194	373,917
Haileybury	3	912,629	63	79,561	67,529	368,041
Shelburne	8	142,449	30	29,573	275,763	366,723
Paisley	11	113,071	29	23,023	283,346	363,397
Winchester	13	115,769	56	102,284	233,375	334,408
Kemptville	11	248,174	65	57,264	167,850	333,728
Bradford	7	207,321	76	67,828	204,409	332,655
Port Dover	8	514,518	75	48,017	200,076	331,724
Essex	7	279,285	41	46,883	205,706	331,597
Thornbury	7	295,263	48	29,352	196,223	328,501
Hagersville	7	94,443	19	18,350	251,377	328,465
Waterdown	7	479,385	69	89,022	47,925	325,786
Iroquois	15	471,936	51	49,050	212,807	325,399
Watford	9	334,299	54	48,343	153,548	320,164
Deseronto	9	287,634	74	49,817	208,446	318,549
Sioux Lookout	6	339,572	92	61,892	91,827	308,400
Alliston	12	217,559	33	25,430	195,392	293,316
Port Perry	12	172,114	52	34,002	200,541	287,959
Casselman	11	248,317	53	34,868	216,096	283,879
Vankleek Hill	15	157,227	58	20,821	214,734	271,847
Copper Cliff[1]	3	989,212	14	20,480	10,379	269,430
Parry Sound	12	498,034	97	51,009	103,591	264,162
Neustadt	5	54,884	13	6,799	215,667	260,471
Arthur	8	65,500	28	20,129	193,134	260,251
Bolton	7	96,111	22	16,091	203,813	251,205
Bancroft	10	168,554	91	35,592	143,522	248,739
Brussels	7	101,147	21	13,163	154,529	247,217
Stouffville	8	125,339	21	19,041	177,314	247,003
Tottenham	6	56,762	16	14,720	189,962	235,827
Grand Valley	7	53,227	19	13,320	190,931	235,508
Parkhill	7	163,150	31	23,992	163,606	231,170
Norwood	11	221,168	32	23,499	169,926	230,505
Eganville	10	234,979	61	33,711	162,111	227,687
Stayner	6	87,066	14	12,227	175,753	227,004
Morrisburg	11	218,677	67	50,829	120,229	222,626
Lakefield	10	122,648	29	20,786	152,306	213,523
Highgate	6	363,593	31	18,114	130,627	202,775
Sutton	4	82,750	20	13,360	145,721	198,412
Merrickville	10	339,524	63	49,712	104,905	197,258
Tara	7	63,583	17	12,249	150,707	196,620
Point Edward	3	306,562	28	45,850	67,522	193,463
Cobden	8	82,990	21	14,966	152,234	190,752
Clifford	6	37,840	9	6,012	145,632	180,327
Latchford	3	220,000	53	37,250	106,800	175,625
Bala	3	248,882	73	52,662	70,400	174,362
Uxbridge	11	132,995	21	17,588	115,680	170,916
Beeton	4	58,475	9	7,819	119,751	166,741
Cannington	8	119,286	27	20,536	114,737	166,143
Cayuga	7	68,818	16	16,052	111,814	162,023
Beamsville	9	270,433	67	33,748	93,428	161,341
Madoc	10	60,234	19	9,709	131,179	159,205
Oil Springs	4	70,513	11	8,670	119,750	156,900
Hensall	7	96,077	37	21,152	94,916	155,047
Thamesville	9	189,104	41	20,896	98,477	152,266
Springfield	7	69,280	13	8,499	120,814	149,440
Alvinston	6	168,414	35	14,974	87,691	148,346

[1] Exclusive of smelter.

34.—Statistics of Manufactures of Municipalities with a Gross Production of $100,000 or over, and with three or more Establishments, 1926—continued.

Cities and Towns.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Value of Products.
	No.	$	No.	$	$	$
Ontario—concluded.						
Bothwell	6	118,462	36	27,965	96,351	143,258
Lucan	7	95,853	21	13,141	106,734	142,291
Erin	7	146,357	15	15,514	88,655	141,655
Dundalk	6	58,007	16	9,343	99,401	140,189
Maxville	10	121,863	65	23,015	83,984	138,742
Embro	7	54,034	20	9,772	111,583	138,006
Westport	10	41,550	15	8,735	112,572	132,902
Markdale	10	128,704	31	11,938	98,269	132,295
Lanark	8	46,571	26	7,809	100,680	131,140
Wroxeter	5	82,029	11	6,183	108,618	131,940
Rodney	6	121,515	92	52,354	61,815	128,667
Drayton	6	58,792	14	8,583	96,311	126,706
Courtwright	3	410,511	41	47,899	10,120	126,285
Millbrook	6	40,073	10	8,074	98,159	124,809
Colborne	6	135,104	56	14,637	81,257	123,395
Cochrane	8	191,641	28	25,652	43,681	122,240
Belle River	5	346,370	31	18,499	59,758	120,003
Blyth	6	74,259	9	6,407	81,907	117,548
Hastings	6	120,220	32	24,333	70,322	116,786
Fenelon Falls	7	94,535	13	7,709	85,181	113,965
Blenheim	8	311,409	58	20,214	47,778	113,862
Creemore	6	52,718	17	9,378	77,478	110,403
Coldwater	8	58,687	22	10,516	65,518	103,580
Milverton	6	196,072	34	20,291	53,927	102,051
Manitoba—						
Winnipeg	446	96,801,995	15,469	20,086,607	46,501,703	87,696,243
St. Boniface	30	8,331,780	1,404	1,707,440	17,726,171	23,581,870
Brandon	37	4,151,072	429	579,724	2,213,775	3,761,168
Portage la Prairie	14	787,937	187	218,409	1,764,844	2,248,967
Selkirk	7	1,630,806	324	435,056	404,638	1,476,776
The Pas	7	1,511,111	312	364,450	603,540	1,433,196
Dauphin	13	359,670	71	59,013	276,255	454,182
Shoal Lake	4	69,830	21	19,658	233,647	301,301
Rapid City	3	27,427	9	14,178	230,287	281,098
Neepawa	4	179,521	36	38,139	180,791	269,245
Russell	3	67,702	8	9,545	126,470	164,639
Souris	6	410,693	15	15,118	102,838	152,548
Morden	4	47,898	23	8,835	95,342	134,383
Virden	3	114,314	13	17,866	80,002	130,589
Melita	4	25,253	9	7,316	88,028	120,673
Stonewall	4	339,330	80	56,827	18,853	119,049
Winkler	4	84,951	11	6,394	91,151	117,597
Saskatchewan—						
Regina	59	11,652,259	1,503	2,196,254	8,713,236	14,985,432
Moose Jaw	28	4,282,521	677	999,191	8,765,523	11,858,745
Saskatoon	49	7,258,807	1,027	1,477,778	4,225,881	8,003,169
Prince Albert	23	1,876,825	377	440,290	2,168,412	3,183,186
Yorkton	10	763,326	67	71,787	380,751	648,210
North Battleford	9	519,993	72	105,445	248,837	542,689
Weyburn	9	463,123	55	68,337	232,494	444,707
Swift Current	10	682,089	55	75,552	195,724	413,823
Melville	4	233,490	20	29,674	211,720	334,991
Estevan	7	302,418	79	51,952	144,925	285,787
Lloydminster	6	132,810	19	22,413	131,884	210,664
Melfort	7	186,984	21	27,895	93,347	190,840
Biggar	7	144,281	18	25,720	101,355	168,314
Preeceville	4	31,683	6	6,896	127,624	162,211
Battleford	6	82,451	13	12,939	102,000	160,372
Humboldt	5	200,829	17	19,984	95,822	159,565
Maple Creek	5	81,104	14	14,780	91,952	143,713
Unity	6	92,410	12	11,777	88,381	139,610
Outlook	6	155,144	15	16,512	98,469	125,027
Kerrobert	5	80,400	13	12,827	88,529	124,512
Carnduff	3	37,713	5	6,395	96,638	123,963
Carlyle	3	52,307	7	9,293	91,151	122,850
Moosomin	5	64,105	8	8,571	80,702	117,510
Rosthern	4	100,621	20	18,177	80,471	114,438
Wadena	3	38,741	6	7,248	81,041	111,179
Shellbrook	4	31,025	8	7,913	83,557	103,734

31.—Statistics of Manufactures of Municipalities with a Gross Production of $100,000 or over, and with three or more Establishments, 1926—concluded.

Cities and Towns.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Value of Products.
	No.	$	No.	$	$	$
Alberta—						
Calgary	134	32,074,263	3,404	4,816,535	19,082,882	33,010,188
Edmonton	135	18,098,123	4,136	4,734,600	13,630,780	23,984,516
Medicine Hat	24	5,133,755	599	726,416	8,368,214	10,276,380
Lethbridge	26	3,207,639	367	525,993	1,392,559	3,187,741
Redcliffe	6	1,391,748	240	278,962	274,621	959,033
Raymond	3	2,117,300	90	127,264	380,249	671,617
Wetaskiwin	9	307,728	35	43,989	353,118	505,254
Stettler	8	142,860	23	32,695	220,728	343,825
Red Deer	7	199,698	36	52,973	168,064	292,064
Vegreville	8	140,571	27	33,422	176,348	273,126
Vermilion	7	122,312	21	25,891	179,585	270,393
Camrose	8	236,168	25	33,076	141,507	246,844
Drumheller	6	643,485	40	66,134	27,435	238,708
Blairmore	6	446,292	68	97,605	112,263	234,112
Hanna	4	112,634	13	15,366	129,016	209,497
Lacombe	7	77,445	18	18,139	112,276	187,649
Viking	4	50,315	11	13,458	144,692	175,721
Ponoka	4	55,591	9	9,674	127,233	175,632
St. Paul de Métis	4	54,756	8	8,310	124,652	169,982
Innisfail	3	51,659	12	15,887	120,296	166,147
Coronation	4	64,469	15	17,573	112,588	157,705
Leduc	7	59,204	11	10,690	99,021	136,476
Tofield	3	25,537	6	8,250	98,442	118,698
Bashaw	5	43,468	10	11,035	87,915	118,469
Manville	4	33,509	7	7,407	84,266	117,122
Didsbury	5	85,847	9	8,659	74,510	113,394
Wainwright	4	55,834	10	11,265	67,654	111,164
Westlock	4	40,825	6	5,941	80,528	109,326
Peace River	4	86,569	56	44,072	42,787	107,580
Olds	3	89,274	9	11,270	74,514	102,485
British Columbia—						
Vancouver	523	106,624,727	14,781	18,347,299	46,120,382	84,831,423
Victoria	138	18,269,082	2,737	3,270,449	4,516,929	11,593,233
New Westminster	55	9,618,710	2,179	2,506,096	7,234,267	11,790,476
Prince Rupert	15	2,491,325	231	363,511	2,396,135	3,251,260
Port Moody	3	1,537,449	245	320,647	1,254,099	2,104,265
North Vancouver	15	3,957,189	769	875,742	725,652	2,003,741
Rossland	8	6,177,111	186	327,678	7,750	1,664,610
Fernie	5	5,315,535	162	216,218	672,702	1,487,597
Nelson	24	1,591,380	269	337,667	482,868	1,416,394
Kelowna	19	1,034,622	428	298,609	675,974	1,301,306
Kamloops	11	1,354,209	160	191,933	332,238	961,541
Nanaimo	30	804,991	354	245,338	458,625	959,730
Duncan	8	481,509	258	317,248	431,713	928,337
Port Coquitlam	5	677,161	123	124,345	287,661	549,052
Armstrong	9	235,548	51	61,458	184,986	363,991
Merritt	7	419,901	117	160,399	171,107	356,040
Courtenay	7	299,714	83	45,084	146,557	273,253
Trail[1]	6	63,873	32	68,530	66,688	272,671
Vernon	14	688,481	135	87,256	57,782	234,979
Prince George	7	181,838	73	95,336	94,735	230,860
Cranbrook	10	282,496	33	49,499	57,471	189,219
Cumberland	7	436,192	65	69,657	60,080	174,574
Grand Forks	7	106,955	31	25,537	59,414	147,553
Revelstoke	8	344,616	35	39,930	33,050	131,984
Salmon Arm	9	97,276	21	20,519	76,724	123,889

[1]The Trail smelter is not within the municipality.

CHAPTER XV.—CONSTRUCTION.

Construction is the most conspicuous example of a great industry carried on in almost complete dependence on a local demand. The building industry is not only the most widespread in its operation; it is one which expands most rapidly in good times, when it attracts great numbers of general and casual workmen—a characteristic which explains the high rate of unemployment from which the industry periodically suffers. Again, apart from the effect of cyclical fluctuations of general business conditions, the construction industry is highly seasonal. In the winter there is a serious contraction, especially in outside operations, while in the other seasons the contractors employ a much larger number of men, casually engaged, than can be retained throughout the year. A considerable number of the men are in no sense skilled artisans and the supply of unskilled men is generally in excess of the demand. Moreover, conditions in the industry are being transformed on account of the increasing substitution of reinforced concrete for wood and brick construction.

Relation of Construction Industry to General Business Conditions.—Statistics showing activity in construction are of particular interest both to those engaged in the industry itself and to those concerned with the supplying of its raw materials, such as lumber, steel, cement, paint, glass and hardware. All of these latter industries are prosperous when the construction industry is active, and depressed when it is at a standstill; again, the effects of their activity and depression are felt throughout the whole field of industry, so that the current conditions in the construction industry react powerfully upon the whole economic life of the nation. Thus, in the period between 1909 and 1913, construction, mainly financed with borrowed money, contributed in large measure to produce the "boom" of those years.

During the war period the industry was at a low ebb, except for the construction of munition plants, but after the war the housing shortage was a serious problem, and considerable building was undertaken in spite of the high cost of materials and skilled labour, as shown in Table 4. The urgent requirements due to the practical suspension of the industry during the war were fully met in the post-war years, but the rising tide of prosperity in 1928 is reflected in the highest value of construction contracts on record, aggregating $472,032,600 and exceeding the total value of $463,083,000 in the former peak year, 1912, although the rise in general price levels from 1912 to 1928 makes it probable that the total for the former year represents the larger amount of construction. (Table 2.)

Construction in Transportation and Public Utility Industries.—The expenditure for construction by the transportation and public utility systems is incorporated in their general maintenance and structural accounts. The maintenance of way and structures account of the steam railways in 1927 totalled $86,436,213, as compared with $81,095,525 in 1926. There were 315·3 miles of new lines opened for operation during 1927, 243·4 miles completed but not opened for traffic and 877·7 miles under construction. These figures do not include the work on the Hudson Bay railway main line nor on the branch line to Flin Flon. Total track mileage in 1927 was 54,717 as compared with 54,279 in 1926, a net increase of 438 miles. The expenditure of electric railways on maintenance of way and structures account declined slightly from $4,190,457 in 1926 to $4,185,317 in 1927. The length of their main line first and second track decreased from 2,237·57 to 2,215·09 or by 22·48 miles.

As for the growth of the telephone systems of Canada, the pole line mileage increased from 201,604 in 1926 to 204,245 in 1927, and the wire mileage from 3,306,214 to 3,591,035 in the same period. The property and equipment account was $227,155,900 in 1926 and $243,999,135 in 1927.

The pole line mileage of the telegraph systems increased from 52,612 in 1926 to 52,731 in 1927, and the wire mileage, which was 305,933 in 1926, increased to 323,539 in the following year. The cost of property and equipment of telegraph companies, including the telegraph systems of the railway companies, was $26,443,851 in 1926 and $29,063,590 in 1927.

Contracts Awarded.—A record of contracts awarded during the years 1911-28, as compiled by MacLean Building Reports, Ltd., is given in Table **1.** The aggregate for 1928 is the highest in the record, exceeding by $9,000,000 the former record of 1912, when immigration was exceptionally great, necessitating an extensive building programme to care for the rapidly growing population. Although there was not such an influx during 1928, the detailed records, as given in Table **2,** show a large increase in residential building, of which a considerable portion was apartment house construction. The total of business construction reached a very high figure, being more than double the total for any of the years 1923-1925. The greatest proportional increase was in industrial construction, where the 1928 total was 58 p.c. greater than that of 1927. Engineering construction also showed an increase over the previous year.

1.—Summary of the Value of Construction Contracts awarded in Canada, 1911-1928, as compiled by MacLean Building Reports, Ltd.

Years.	Value of construction contracts.	Years.	Value of construction contracts.
	$		$
1911	345,425,000	1920	255,605,000
1912	463,083,000	1921	240,133,300
1913	384,157,000	1922	331,843,800
1914	241,952,000	1923	314,254,300
1915	83,916,000	1924	276,261,100
1916	99,311,000	1925	297,973,000
1917	84,841,000	1926	372,947,900
1918	99,842,000	1927	418,951,600
1919	190,028,000	1928	472,032,600

2.—Details of Construction Contracts awarded in Canada, 1923-1928, as compiled by MacLean Building Reports, Ltd.

Distribution.	1923.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$	$
PROVINCES.						
Prince Edward Island	457,100	238,200	345,600	374,500	421,100	559,000
Nova Scotia	4,710,800	4,035,400	4,154,800	3,444,800	5,469,300	27,781,000
New Brunswick	3,581,500	4,323,100	4,373,300	4,593,000	3,597,200	7,825,000
Quebec	102,569,800	89,511,200	124,509,100	151,933,930	133,182,600	144,185,000
Ontario	156,151,800	136,041,400	121,248,100	141,929,400	196,159,000	188,351,700
Manitoba	9,984,000	6,492,500	13,093,200	19,186,600	29,939,900	23,995,300
Saskatchewan	5,793,300	5,857,800	4,923,100	14,251,500	11,337,600	22,127,100
Alberta	7,066,400	6,600,400	3,867,500	10,058,400	7,507,300	17,909,700
British Columbia	23,939,600	23,161,100	21,458,300	27,175,800	31,337,600	39,295,800
Total	**314,254,300**	**276,261,100**	**297,973,000**	**372,947,900**	**418,951,600**	**472,032,600**

2.—Details of Construction Contracts awarded in Canada, 1923-1928, as compiled by MacLean Building Reports, Ltd.—concluded.

Distribution.	1923.	1924.	1925.	1926.	1927.	1928.
TYPE OF CONSTRUCTION.	$	$	$	$	$	$
Apartments	8,818,600	9,797,400	12,723,600	20,979,300	25,981,800	36,720,500
Residences	88,826,600	81,427,400	83,766,300	88,583,100	98,957,800	102,445,800
Total Residential	**97,645,200**	**91,224,800**	**96,489,900**	**109,562,400**	**124,939,600**	**139,166,300**
Churches	5,685,200	17,261,300	8,646,900	9,942,600	12,052,700	8,327,500
Public garages	2,295,500	3,591,600	4,409,100	4,820,500	7,354,700	10,889,100
Hospitals	4,295,800	7,818,700	5,352,500	6,460,100	8,897,200	9,596,300
Hotels and clubs	4,187,000	7,147,300	4,598,400	19,979,400	30,598,700	15,486,400
Office buildings	11,217,500	7,701,200	9,335,700	11,957,600	40,752,900	34,120,900
Public buildings	7,376,000	5,597,200	6,736,600	4,546,400	8,195,200	8,744,700
Schools	15,628,400	13,635,800	13,231,900	17,110,700	22,244,000	20,907,400
Stores	10,735,100	7,687,900	13,511,200	12,640,200	11,831,900	27,448,000
Theatres	565,900	757,100	723,000	2,432,700	1,519,500	3,085,000
Warehouses	18,450,400	12,468,600	6,521,800	22,518,700	19,982,000	31,621,300
Total Business	**80,436,800**	**73,666,700**	**73,067,100**	**112,408,900**	**163,428,800**	**170,226,600**
Total Industrial	**27,022,000**	**21,765,000**	**40,007,300**	**79,689,700**	**39,988,900**	**63,300,900**
Bridges	6,384,300	3,979,800	17,804,400	6,681,700	23,468,900	7,360,200
Dams and wharves	5,240,800	4,055,800	4,768,800	7,374,500	6,565,300	8,297,900
Sewers and water-mains	4,578,500	7,848,900	8,102,100	7,889,300	9,624,700	10,455,800
Roads and streets	43,590,000	30,718,500	26,992,100	24,379,900	24,382,800	29,412,500
General engineering	49,356,700	43,001,600	30,741,300	24,961,500	26,552,600	43,812,400
Total Engineering	**109,150,300**	**89,604,600**	**88,408,700**	**71,286,900**	**90,954,300**	**99,338,800**

Building Permits.—The estimated value of construction in 63 cities of Canada, as indicated by their building permits, is shown for the years 1923 to 1928 inclusive in Table 3. These cities had in 1921 about 32·6 p.c. of the population of Canada, while their 1928 building permits aggregated $219,105,715 or 46 p.c. of the total contracts awarded, as shown in Table 1. In this table, the 35 cities for which statistics of building permits are available since 1910 are indicated by an asterisk (*), and the totals for these cities are given beneath the totals for the larger group.

Table 4 shows the value of the building permits issued by 35 cities in the years 1910-1928. The average weighted index numbers of wholesale prices of building materials since 1914 are also given, as are the average indexes of wages in the building trades since 1910, the latter being compiled by the Department of Labour, and the former by the Dominion Bureau of Statistics. These indexes are introduced to show as far as possible the fluctuations in building costs with their effect upon construction work. Attempts have been made to determine the relative proportion of material and wage costs in general building, but representative data could not be obtained.

Owing to the increasing use of the automobile and other means of rapid transportation, a growing percentage of those who work in the cities reside outside the municipal boundaries. Hence arises in part the necessity for an extension of the record of building permits to include such suburban areas as the York Townships in the case of Toronto, and North and South Vancouver. South Vancouver and Point Grey have been annexed to Vancouver city as from Jan. 1, 1929.

3.—Value of Building Permits taken out in 63 Cities for the calendar years 1923-1928.

NOTE.—Asterisks indicate the 35 original cities, statistics for which are available since 1910.

Cities.	1923.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$	$
P.E.I., Charlottetown	**50,200**	**31,900**	**21,800**	**29,000**	[1]	[1]
Nova Scotia	**739,646**	**901,621**	**1,099,787**	**908,945**	**1,840,647**	**3,078,176**
*Halifax	378,699	731,209	1,035,564	764,498	1,537,899	2,808,357
New Glasgow	41,785	18,505	20,286	7,870	10,850	64,515
*Sydney	319,162	151,907	43,937	136,577	291,898	205,304
New Brunswick	**1,049,856**	**1,492,364**	**986,325**	**771,421**	**1,365,065**	**1,262,266**
Fredericton	305,895	257,325	98,175	37,050	14,799	148,015
*Moncton	385,461	101,774	204,620	342,701	736,110	270,813
*Saint John	358,500	1,133,265	683,530	391,670	614,176	843,438
Quebec	**35,483,853**	**42,562,336**	**35,186,268**	**42,167,440**	**58,320,532**	**49,933,504**
*Montreal-Maisonneuve	27,125,863	31,013,419	25,520,523	31,720,049	45,200,842	36,347,901
*Quebec	4,786,933	7,331,846	3,274,371	3,939,281	6,360,165	5,710,144
Shawinigan Falls	124,990	229,377	384,925	315,760	347,835	1,163,581
*Sherbrooke	732,100	529,878	1,037,110	712,350	689,930	1,128,233
*Three Rivers	780,735	1,046,210	2,064,815	1,445,575	2,332,500	1,681,450
*Westmount	1,933,232	2,411,606	2,904,524	4,034,425	3,389,260	3,902,195
Ontario	**74,673,080**	**57,330,141**	**59,888,867**	**65,373,757**	**79,883,344**	**104,777,566**
Belleville	54,825	195,000	194,725	306,610	670,010	239,323
*Brantford	615,686	191,480	159,537	232,049	571,599	802,528
Chatham	245,867	352,329	193,858	591,650	575,087	780,020
*Fort William	1,425,130	1,272,570	727,340	1,291,250	1,209,450	2,062,000
Galt	135,631	124,742	108,723	181,185	181,023	378,581
*Guelph	571,484	404,304	426,641	344,616	493,169	462,815
*Hamilton	5,452,930	3,309,800	2,675,830	3,128,950	3,837,150	6,342,100
*Kingston	649,233	1,035,620	493,758	608,532	420,467	678,203
*Kitchener	1,893,892	1,221,122	1,546,262	1,100,111	1,272,632	1,524,625
*London	3,261,065	2,113,500	2,389,800	3,621,200	2,814,950	2,561,705
Niagara Falls	758,513	802,622	1,114,290	1,504,000	1,517,510	2,056,415
Oshawa	1,923,110	786,985	576,205	1,044,100	5,255,188	3,015,070
*Ottawa	3,521,817	2,540,699	4,942,327	3,101,748	6,446,045	5,421,085
Owen Sound	319,450	161,125	536,970	154,450	330,350	262,375
*Peterborough	295,798	437,510	272,637	342,757	624,295	625,577
*Port Arthur	2,640,321	1,186,207	402,488	961,580	3,473,736	5,292,545
*Stratford	509,272	641,619	407,731	480,915	221,254	224,412
*St. Catharines	806,310	713,638	666,962	940,642	1,147,286	1,249,141
*St. Thomas	334,239	164,026	350,181	138,597	92,682	362,732
Sarnia	791,470	840,803	725,698	601,646	1,064,415	814,586
Sault Ste. Marie	401,032	559,245	242,993	235,766	329,461	402,419
*Toronto	30,609,227	23,926,028	25,797,196	26,029,584	31,274,876	51,607,188
York Townships	8,921,650	5,710,400	6,611,440	5,558,540	6,041,635	8,210,380
Welland	206,105	178,880	124,320	404,049	400,364	309,866
*Windsor	4,725,034	4,429,308	4,333,945	7,319,454	4,930,832	4,518,723
Ford	1,539,702	1,371,662	1,104,445	1,592,058	1,054,531	758,315
Riverside	334,945	403,450	600,750	455,630	624,340	496,460
Sandwich	809,754	959,799	1,224,765	1,707,550	1,323,140	762,775
Walkerville	610,000	1,058,000	851,000	1,268,000	1,527,000	2,108,000
Woodstock	309,588	237,668	86,050	126,538	158,867	447,602
Manitoba	**5,177,487**	**3,867,102**	**5,205,828**	**11,091,372**	**8,561,122**	**11,846,635**
*Brandon	183,034	270,825	76,579	227,516	230,252	428,130
St. Boniface	510,353	418,377	972,559	501,256	761,570	871,105
*Winnipeg	4,484,100	3,177,900	4,156,690	10,362,600	7,569,300	10,547,400
Saskatchewan	**2,405,976**	**2,856,190**	**2,531,380**	**6,529,041**	**7,928,574**	**13,449,826**
*Moose Jaw	289,398	501,129	243,535	268,326	1,230,489	1,074,078
*Regina	1,264,030	939,785	1,208,403	4,242,511	3,482,090	6,619,206
*Saskatoon	852,548	1,415,276	1,079,442	2,018,204	3,215,995	5,756,542
Alberta	**2,597,987**	**3,695,604**	**2,862,260**	**4,115,317**	**5,398,691**	**10,292,579**
*Calgary	821,840	1,031,420	1,197,475	1,999,048	2,330,131	6,302,142
*Edmonton	1,488,670	2,305,095	1,481,890	1,853,735	2,568,565	3,374,971
Lethbridge	258,570	226,222	161,189	236,359	438,684	498,590
Medicine Hat	28,907	132,867	21,706	26,175	61,311	116,876

[1] No information received.

3.—Value of Building Permits taken out in 63 Cities for the calendar years 1923-1928— concluded.

Cities.	1923.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$	$
British Columbia	**11,343,536**	**13,845,890**	**17,246,852**	**25,400,314**	**21,315,767**	**24,465,163**
Kamloops	99,728	163,861	99,105	187,269	252,488	128,761
Nanaimo	137,507	89,005	212,591	77,496	211,065	45,269
*New Westminster	350,848	321,432	704,263	748,169	1,082,114	1,928,324
Prince Rupert	97,148	209,312	1,337,769	187,465	252,940	176,804
*Vancouver	6,277,574	6,230,774	7,964,375	15,501,262	10,687,167	12,777,293
Point Grey	2,397,750	4,251,300	5,080,000	6,045,650	4,678,430	5,136,850
North Vancouver	220,546	1,123,441	268,542	564,074	322,739	912,780
South Vancouver	712,275	618,662	1,032,690	1,390,690	1,304,083	1,531,145
*Victoria	1,050,160	838,103	547,517	698,239	2,524,741	1,827,937
Total—63 Cities	**133,521,621**	**126,583,148**	**125,029,367**	**156,386,607**	**184.613,742**	**219,105,715**
***Total—35 Cities**	**111,174,325**	**105,070,284**	**101,021,798**	**131,048,721**	**154,904,047**	**187,269,237**

4.—Value of Building Permits Issued by 35 Cities in the calendar years 1910-1928.

(1913=100.)

Years.	Value.	Average Index Numbers of	
		Wholesale prices of building materials.	Wages in the building trades.
	$		
1910	100,357,546	–	86·9
1911	138,170,390	–	90·2
1912	185,233,449	–	96·0
1913	153,662,842	100·0	100·0
1914	96,780,981	93·8	100·8
1915	33,566,749	90·3	101·5
1916	39,724,466	103·8	102·4
1917	33,936,426	130·7	109·9
1918	36,838,270	150·5	125·9
1919	77,113,413	175·8	148·0
1920	100,679,839	214·9	180·9
1921	94,508,164	183·2	170·5
1922	122,655,581	162·2	162·5
1923	111,174,325	167·0	166·4
1924	105,070,284	159·1	169·7
1925	101,021,798	153·7	170·4
1926	131,048,721	149·2	172·1
1927	154,904,047	147·6	179·3
1928	187,269,237	149·3	185·6

CHAPTER XVI.—EXTERNAL TRADE.

This chapter commences with a short history of Canadian external trade, the Canadian tariff, and recent developments in external trade, followed by a brief account of the Commercial Intelligence Service. Thereafter is to be found a treatment of external trade statistics under six main headings:—historical statistics of total Canadian trade and trade with the United Kingdom and the United States (Tables 1 to 9); current trend statistics of trade with respect to commodities imported from and exported to all countries, the United Kingdom and the United States (Tables 10 to 18); current trend statistics of trade with the principal trading countries of the world, by principal commodities imported and exported (Tables 19 to 33); an analysis showing the volume as distinguished from the value of trade in recent years; a short study of the tourist trade. The chapter closes with an analysis of Canada's balance of international payments in recent years.

Section 1.—Historical Sketch of External Trade and Tariffs.

In the early history of the American continent each of the different European nations establishing settlements in the New World endeavoured to monopolize the commerce of its colonies, prohibited the ships of other nations from resorting to them and prohibited its colonials from importing European goods from other countries, generally granting them, however, preferential treatment in its own market. In these circumstances the colonial wars in America were carried on by governments permeated by the mercantile spirit, for "ships, colonies and commerce". Owing to this fact, wars resulting in the transfer of colonies from one European power to another involved great economic as well as political changes in the community so transferred. The traders who had previously controlled the trade between the colonial power and its colony found their occupations gone, while new traders from the conquering state arrived to take over the import and export trade, which thereafter flowed in new channels perhaps no more artificial than those which had previously existed.

Throughout the earlier part of the French *régime* in Canada, the foreign trade of the colony was in the hands of the monopolistic chartered companies, of which the Company of One Hundred Associates was the most notable. When its monopoly was cancelled in 1663, the foreign trade of Canada still remained a preserve of the merchants of Old France. Upon the conquest of the country by the British, the French merchants who had their offices in Quebec and Montreal for the most part returned to France, and the trade of the colony fell into the hands of the traders from England, Scotland and New England, who had swarmed into the country at the heels of the invading armies. Some of their descendants are still among the leaders in Canadian import and export trade.

For the first sixty years of British rule, Canadian commerce was carried on almost exclusively with or through the United Kingdom, the merchants of New England complaining, after the American Revolution, of being shut out from the Canadian trade. The geographical juxtaposition of the United States to British North America was, however, a factor which could not permanently be ignored, and smuggling became more and more prevalent as the process of settlement extended westward along the international boundary. In 1822 Great Britain made considerable concessions to United States traders. In 1846 she abolished the preferential

treatment which she had given to Canadian wheat, and in 1860 all vestige of preference to colonial products disappeared from the British tariff. As a consequence, the colonies which, like Canada, were by this time enjoying responsible government, could not any longer be refused the right to control their own commercial policy—a fact which was emphasized in an important report prepared in 1859 by the then Minister of Finance, (Sir) A. T. Galt, and forwarded to the British Government. This report declared that the responsibility of the Canadian Government must be to the Canadian people, more especially in matters of taxation (the greater part of the revenue being raised by customs duties), and that the Canadian Government must affirm the right of the Canadian Parliament to adjust the taxation of the people in the way it deemed best, even if this should happen to meet with the disapproval of the British Ministry. This doctrine remained unchallenged by the British Government, and coming at a time when all important parties in Great Britain had accepted free trade as a *fait accompli*, it facilitated the setting up of a protective tariff in Canada, designed to secure the establishment in Canada of manufacturing industries, at a time when British opinion desired that the colonies should concentrate their attention on the production of food and raw materials, importing from Great Britain the manufactured commodities which they required.

The Abolition of Preference and the Reciprocity Treaty of 1854.—The abolition of the British preference to Canadian wheat in 1846 brought about a depression in the flour-milling industry of Montreal and an ephemeral agitation for union with the United States. The effects of the repeal of the preference were, however, mitigated in 1849 by the repeal of the Navigation Acts and the throwing open of the carrying trade between Canada and the United Kingdom to the shipping of the world. Meanwhile, the abandonment of protection in the Mother Country led to the initiation of negotiations for a reciprocity treaty with the United States; a treaty for the free exchange of natural products between them and the British North American colonies was negotiated in 1854, and became effective on Mar. 16, 1855. Under its terms the Canadian farmer and fisherman derived considerable benefit, more especially during the period of the Civil War, when prices in the United States were particularly high. Partly as a consequence of the friction between Great Britain and the United States during the Civil War period, and partly because the new Canadian tariff shut out the manufactured goods of the United States, the treaty was denounced by the United States at the end of the ten-year period for which it had been negotiated, and ceased to operate 12 months later on Mar. 17, 1866. The denunciation of the treaty had a considerable effect in bringing about the Confederation of the British North American colonies, which it was hoped would to a great extent absorb each other's products.

Tariff Policy since Confederation.—The immediate effect of Confederation was to abolish the tariff barriers which existed between the provinces entering the Dominion. As the area of Canada increased until, except for Newfoundland and Labrador, it became conterminous with British North America, the area of internal free trade was thereby extended, while protection against outside competition was generally maintained. However, the protective tariff of the old province of Canada, adopted in 1859 with a prevailing rate of 20 p.c., was replaced in 1866 by a tariff assimilated to the revenue tariffs of the Maritime Provinces, with the rates of duties on the great bulk of manufactured commodities reduced from 20 and 25 p.c. to 15 p.c. Later on, the world-wide depression which commenced in

1873, and the consequent falling off in a revenue based upon trade, necessitated an increase of the general rate to 17½ p.c., with a 20 p.c. rate on certain luxuries. Even this increase failed to fill the treasury.

In 1879, after the people had declared for a protective policy in the general election of 1878, the duties on imported manufactured goods were considerably increased, the rate on goods "not otherwise provided" being raised from 17½ p.c. to 20 p.c., the rates on cotton goods from 17½ p.c. to rates, specific and *ad valorem*, equivalent on the importations of 1881 to 30 p.c., while the duties on woollens were practically doubled. The rate on furniture and clocks was increased to 35 p.c.; on carriages, glassware, wall-paper and silks to 30 p.c.; on boots and shoes, buttons, rubber goods and woodenware to 25 p.c. Pig iron, previously free, now paid $2 a ton, and the duty on iron billets, bars and rods was increased from 5 p.c. to 10 and 17½ p.c., while manufactured iron and steel products and machinery were given 25 to 35 p.c. protection. Throughout the 80's the general trend of the minor revisions made in the tariff was still upwards, but in the 90's a downward tendency became manifest. In 1891 the duty on raw sugar was repealed, and in 1894 material reductions were made on agricultural implements, and minor readjustments on cottons and woollens. This period was also marked by the thoroughgoing extension of protection to the iron and steel industry, both by customs duties and bounties.

In the tariff revision of 1897, the duties on Indian corn, binder-twine, barbed wire, pig iron, flour and refined sugar were reduced or abolished, while the bounties on domestic pig iron were not reduced, but in certain cases increased. But the most distinctive feature of the tariff revision of 1897 was the adoption of what was called a "reciprocal" tariff, one-eighth lower than the general. This "reciprocal" tariff was at once applied to the United Kingdom, and afterwards to New South Wales and to British India, while Belgium and Germany, in virtue of their trade treaties with Great Britain, were also admitted to the benefits of the "reciprocal" tariff, together with Argentina, Austria-Hungary, Bolivia, Colombia, Denmark, Persia, Russia, Sweden, Switzerland, Tunis and Venezuela, on account of most-favoured-nation treaties between these countries and Great Britain, and France and her colonies, in consequence of the Franco-Canadian treaty of 1893. A little later the "reciprocal" tariff was extended to the Netherlands, Japan, Siberia, Morocco, Salvador, South African Republic, Tonga and Spain, also under most-favoured-nation treaties between these countries and the United Kingdom.

The numerous concessions mentioned above were, however, of a merely temporary character, ceasing to exist in 1898 as a consequence of the denunciation by Great Britain of her most-favoured-nation treaties with Germany and Belgium. This left Canada free to confine her lower tariff rates to the United Kingdom and to sister Dominions and colonies. A British preferential tariff, consisting at first of a remission of 25 p.c. of the duty ordinarily paid (Aug. 1, 1898), and later of a remission of 33⅓ p.c. of the ordinary rate of duty (July 1, 1900), was established. This method of preference was abandoned in 1904 for a specially low rate of duty on almost all imported dutiable commodities.

Customs Tariff of 1907.—In 1907 a new customs tariff was introduced, establishing three scales of duties, British preferential (the lowest), intermediate and general, the intermediate tariff being set up as a basis for negotiation with foreign countries in the interest of Canadian trade. This tariff of 1907 is still in operation, with modifications. Under it, the British preferential tariff applied in 1928 to nearly the whole of the British Empire except Australia and Newfoundland, while

to the British West Indies, under an agreement of June, 1920, rates of duties are granted even lower than those of the ordinary preferential tariff—in nearly all cases a remission of 50 p.c. of the duty ordinarily charged.[1] The regular British preference was further increased in 1923 (13-14 Geo. V, c. 42), by a discount of 10 p.c. of the amount of duty computed under the British preferential tariff, when goods paying 15 p.c. duty or over are conveyed without transshipment from a port of a country enjoying the British preferential tariff into a sea or river port of Canada.

The intermediate tariff applied in 1928 to the products of the following countries:—France, her colonies and protectorates, Belgium, Italy and the Netherlands (all these under special treaties), Argentina, Colombia, Cuba, Denmark, Japan, Norway, Spain, Sweden, Switzerland and Venezuela (under reciprocal most-favoured-nation clause treatment). New commercial treaties with France (including her colonies and protectorates) and Italy were approved at the 1923 session of Parliament (13-14 Geo. V, cc. 14 and 17), a commercial convention with Belgium at the 1924 session (14-15 Geo. V, c. 9), agreements with Australia, Finland and the Netherlands (including the Dutch colonies) at the 1925 session (15-16 Geo. V, cc. 30, 11 and 19), and a trade convention with Czechoslovakia at the 1928 session (18-19 Geo. V, c. 18). Under c. 52 of 1928, most-favoured-nation agreements with Estonia, Hungary, Latvia, Lithuania, Portugal, Rumania and the Serb-Croat-Slovene Kingdom, became effective in 1928.

There is also in the Canadian customs tariff an anti-dumping clause, providing that in the case of imported articles of a kind made or produced in Canada, if the export or selling price to the Canadian importer is less than the fair market value in the country whence imported, there shall be levied, in addition to the duties otherwise payable, a special duty equal to the difference between the selling price for export and the fair market value for home consumption, but such special duty shall not exceed 15 p.c. *ad valorem*, nor be levied on goods when the normal duties are 50 p.c. *ad valorem*, nor on goods subject to excise duties.

Drawbacks of 99 p.c. of duties paid on imported materials are allowed by the customs laws and regulations in cases where articles manufactured from such materials are afterwards exported.

Surtax.—In 1903, the Customs Tariff Act of 1897 was amended to provide for a surtax of one-third of the duty on goods the product of any foreign country which treats imports from Canada less favourably than those from other countries. This surtax was at once applied against certain German goods, but was removed on Mar. 1, 1910, when Canada obtained the conventional rates of the German tariff on a specified list of goods. Under the Customs Tariff Act of 1914, the rate of surtax is left to be fixed in each case by the Governor in Council, but is not to exceed 20 p.c. *ad valorem*.

British Preferential Tariff to Canadian and Empire Products.—Soon after the inauguration of the British preferential tariff by Canada, there commenced a movement for specially favourable treatment by Great Britain to "Empire" products. The feeling that Great Britain should give special treatment to such products was in evidence at the Colonial Conference of 1902 and at the Imperial Conferences of 1907 and 1911, but the British Government of 1902 was not ready for the issue, while those of 1907 and 1911 had been elected on a free trade platform. With the Great War, however, there came a change. In 1915 Great Britain imposed customs duties (the so-called "McKenna" duties) on motor cars, motorcycles, musical instruments, watches and clocks, and parts for these articles, all subject to

[1]On the Australian Trade Agreement of 1925 (15-16 Geo. V, c. 30), see p. 1017 of the 1925 Year Book. Newfoundland gets free entry for her fish into Canada.

33⅓ p.c. *ad valorem* general tariff and two-thirds of this amount (or 22⅔ p.c.) *ad valorem* British preferential tariff. Cinematograph films, which come under a specific rate of duty, are also affected, with a preferential rate of two-thirds of the general rate. These duties were allowed to expire on Aug. 2, 1924, but were restored on July 1, 1925. Preferential treatment has recently been extended to include Empire-grown raw tobacco and dried fruits.

Section 2.—The Commercial Intelligence Service.

The Commercial Intelligence Service, maintained by the Department of Trade and Commerce, is designed to further the interests of Canadian trade in other parts of the Empire and in foreign countries. To this end there are established throughout the world offices administered by Trade Commissioners. These Trade Commissioners make periodical reports upon trade and financial conditions, variations in markets and the current demand or opportunities for Canadian products. They also secure and forward to the Department in Ottawa specific inquiries for Canadian goods and in general exert their best efforts for the development and expansion of overseas markets.

Also, in order to keep abreast of Canadian industrial development, each Canadian Trade Commissioner makes a periodic tour of Canada and while in this country gives first-hand information to the Canadian manufacturer regarding opportunities and conditions of trade in his territory.

At the beginning of 1929 Canadian Trade Commissioners were stationed in the United Kingdom at London (where there is also a special Fruit Trade Commissioner responsible for the United Kingdom and the Continent), Bristol, Liverpool and Glasgow; Dublin in the Irish Free State; Buenos Aires, Argentine Republic; Melbourne, Australia; Brussels, Belgium; Rio de Janeiro, Brazil; Port of Spain, Trinidad; Kingston, Jamaica; Shanghai, China; Havana, Cuba; Paris, France; Hamburg, Germany; Rotterdam, Holland; Calcutta, India; Milan, Italy; Kobe, Japan; Mexico City, Mexico; Batavia, Java; Auckland, New Zealand; Cape Town, South Africa; New York City, U. S. Authority had been obtained for the opening of additional offices at Hongkong; Oslo, Norway; Panama City, Panama; Athens, Greece; Chicago and San Francisco in the United States. Under an arrangement made by the Minister of Trade and Commerce with the British Foreign Office, Canadian manufacturers, exporters and others interested in trade matters may secure information and advice from British commercial diplomatic officers and British consuls in all countries in which Canada is not represented by her own Commercial Intelligence Service.

Organization at Ottawa.—Besides the overseas organization of the Commercial Intelligence Service, there is a headquarters staff at Ottawa. This is presided over by a Director, who is the head of the Service and administers and unifies the work assigned to the various Trade Commissioners. Assisting the Director are the following divisions:—Trade Inquiries—where trade reports and information on foreign markets are filed in order to answer foreign and Canadian trade inquiries; Editorial—where the Commercial Intelligence Journal is compiled; Foreign Tariffs—where all the latest tariff data are kept and tariff inquiries answered; and the division handling the Directory of Canadian Exporters—where Canadian exporters are listed, with their agents abroad, commodities handled, ratings, cables and codes used, etc.—and the Foreign Importers' Directory, kept up-to-date by periodical reports from the Canadian Trade Commissioners.

Commercial Intelligence Journal.—The Commercial Intelligence Journal, containing the reports of the Trade Commissioners and other pertinent material relating to export trade, is published weekly by the Department of Trade and Commerce in both English and French editions. The subscription price for either edition is $1.00 per annum in Canada and $3.50 outside of the Dominion. Special reports dealing with various phases of Canada's export trade are also issued from time to time, as supplements to the Commercial Intelligence Journal.

Section 3.—Statistics of External Trade.

NOTE.—For the correct interpretation of the statistics of external trade, it is necessary that the following definitions and explanations of the terms used should be carefully kept in mind.

Quantities and Values.—In all the following tables of imports and exports, the quantities and values are based upon the declarations of importers (import entries) and exporters (export entries), as subsequently checked by customs officials.

Imports: Valuation.—"Imports" means "Imports entered for consumption". "Entered for consumption" does not imply that the goods have been actually consumed in Canada, but that they have passed into the possession of the importer and that duty has been paid on that portion liable for duty.

The value of imported merchandise is the fair market value or the price thereof when sold for home consumption in the principal markets of the country whence and at the time when the same were exported directly to Canada. The "price" and "value" of the goods in every case are stated as in condition packed ready for shipment, the fair value being shown in the currency of the country of export, and the selling price to the purchaser in Canada shown in the actual currency in which the goods were purchased. In the case of goods that are the manufacture or produce of a foreign country the currency of which is substantially depreciated, the value stated is the value that would be placed on similar goods manufactured or purchased in the United Kingdom and imported from that country, if such similar goods are made or produced there. If similar goods are not made or produced in the United Kingdom, the value stated is the value of similar goods made or produced in any European country the currency of which is not substantially depreciated.

Canadian Exports: Valuation.—"Canadian produce" exported includes Canadian products or manufactures, also exports of commodities of foreign origin which have been changed in form or enhanced in value by further manufacture in Canada, such as sugar refined in Canada from imported raw sugar, flour ground from imported wheat, and articles constructed or manufactured from imported materials. The value of exports of Canadian merchandise is the actual cost or the value at the time of exportation at the points in Canada whence originally shipped.

Foreign Exports: Valuation.—"Foreign produce" exported consists of foreign merchandise which had previously been imported (entered for home consumption). The value of such commodities is the actual cost of such goods.

Countries to which Trade is credited.—Imports are classified as received from the countries whence they were consigned to Canada. The countries of consignment are the countries from which the goods have come, without interruption of transit, save in the course of transshipment or transfer from one conveyance to another. The countries whence goods are consigned are not necessarily the

countries of actual origin, since goods produced in one country may be purchased by a firm in another country and thence despatched, after a longer or shorter interval, to Canada. In such cases the second country would be the country of consignment to which the goods would be credited. An example is the case of tea grown in the Orient but purchased in the bonded market in London, England; Canadian statistics record such imports as coming from the United Kingdom.

Exports are credited to the country of final destination, *i.e.*, the country to which they are consigned, whether that country possesses a seaboard or not. The country of final destination is the country to which goods exported from Canada are intended to pass, without interruption of transit save in the course of transshipment or transfer from one means of conveyance to another.

Fiscal Years.—The Canadian fiscal year ended on June 30 of the years from 1868 to 1906, and on March 31 of 1907 and subsequent years.

Subsection 1.—Historical Statistics of Canadian Trade.

A general view of the aggregate trade of Canada in the years from 1868 to 1928 is furnished in Table **1** (p. 494), giving the imports of merchandise for home consumption, dutiable and free, and the exports of Canadian and foreign produce, the total trade as here given being the aggregate of the two. Necessarily, some difficulties have been met in maintaining comparable statistics through such a length of time, one of the most serious of these arising through different methods adopted in dealing with exports of foreign produce. For example, the shrinkage in the exports of foreign produce after 1920 has been due to change of statistical method rather than to actual diminution in value or volume of such goods exported. For the past eight years, re-exports of foreign products from bonded warehouses have no longer been included in Canadian trade statistics either as imports or as exports, while the exports of foreign produce during this period have been composed of goods which had previously been entered as imports for home consumption. Such goods, therefore, are debited to Canada when entering this country, and should be credited to Canada when re-exported.

From Table **2** it will be observed that in most of the years from Confederation to the outbreak of the Great War, imports entered for consumption exceeded total exports, especially during the great growing period from 1904 to 1914. Since 1915, except in the fiscal year ended Mar. 31, 1921, there has been an annual excess of total exports over imports entered for consumption. For the fiscal year ended 1916, the total exports were 153·34 p.c., for 1917, 139·31 p.c., for 1918, 164·62 p.c., for 1919, 137·95 p.c., for 1920, 120·87 p.c., for 1921, 97·60 p.c., for 1922, 100·82 p.c., for 1923, 117·78 p.c., for 1924, 118·51 p.c., for 1925, 135·69 p.c., for 1926, 143·28 p.c., for 1927, 122·92 p.c., and for 1928, 112·76 p.c., of the imports for home consumption.

The values of coin and bullion imported and exported are shown in Table **3.** Amounts collected in export duties from 1868 to 1892, and in import duties from 1868 to 1928, together with the cost of collection expressed as a percentage of the total duties, are stated by years in Table **4.** Tables **5** and **6** show our exports of Canadian produce and our imports for home consumption respectively, furnishing figures of our trade with the United Kingdom, United States and other countries since 1868. These figures show the overwhelming predominance of the two great English-speaking countries in our foreign trade; in the fiscal year ended Mar. 31, 1928, for example, 72·3 p.c. of our exports of domestic produce was shipped to these

two countries, which in the same year together provided 81·7 p.c. of our imports for home consumption. Tables 7 and 8 show respectively by years the percentage proportions of imports from the United Kingdom and the United States to totals of dutiable and free imports since 1901, and the *ad valorem* rates of duty collected on imports from these and from all countries from 1868.

Importations of important raw materials used in Canadian manufacturing industries are given in Table 9 for the fiscal years ended 1911 to 1928.

The statistics in the following table indicate the trend of Canadian trade by main groups in 1914 (pre-war year), 1921 (peak year of *post-bellum* inflation) and 1928, (a) with all countries; (b) with the United Kingdom; and (c) with the United States.

SUMMARY OF THE TRADE OF CANADA BY MAIN GROUPS, 1914, 1921 AND 1928.

Main Groups.	Value of Imports. (Million $).			Value of Exports, (Canadian). (Million $).			Percentage of 1928			
							Imports to		Exports to	
	1914.	1921.	1928.	1914.	1921.	1928.	1914.	1921.	1914.	1921.
(a) With All Countries.										
Agricultural and Vegetable Products..	97·6	259·4	238·2	201·2	482·1	555·1	244·0	91·8	275·9	115·1
Animals and Products	41·1	61·7	65·8	76·6	188·4	165·8	160·1	106·6	216·4	88·0
Fibres and Textiles	109·2	243·6	187·0	1·9	18·8	10·9	171·2	76·7	583·6	57·9
Wood and Paper	37·4	57·5	51·7	63·2	284·6	284·5	138·0	89·9	450·1	100·0
Iron and Products	143·8	245·6	259·6	15·5	76·5	62·8	180·5	105·7	405·1	82·0
Non-Ferrous Metals	35·6	55·7	60·2	53·3	45·9	90·9	169·1	108·0	170·5	198·0
Non-Metallic Minerals	85·3	206·1	153·0	9·3	40·1	25·3	179·3	74·2	272·0	63·0
Chemicals and Products	17·1	37·9	33·6	4·9	20·4	17·9	196·5	88·6	365·3	87·7
Miscellaneous	52·1	72·7	59·8	5·7	32·4	15·0	114·8	82·2	263·1	46·3
Total	619·2	1,240·2	1,108·9	431·6	1,189·2	1,228·2	179·1	89·2	284·5	103·2
(b) With the United Kingdom.										
Agricultural and Vegetable Products..	16·2	38·7	51·1	146·8	141·2	310·2	315·4	132·0	211·3	219·6
Animals and Products	5·7	5·2	6·1	35·4	91·3	48·7	107·0	117·3	137·5	53·3
Fibres and Textiles	60·6	111·3	71·5	0·2	2·6	1·9	117·9	64·2	950·0	73·0
Wood and Paper	3·7	3·1	4·4	12·8	36·8	17·2	118·9	141·9	134·3	46·7
Iron and Products	17·3	16·7	17·7	1·4	17·6	8·2	102·3	106·0	585·7	46·6
Non-Ferrous Metals	4·8	6·7	5·8	16·6	9·9	15·7	120·8	86·5	94·5	158·5
Non-Metallic Minerals	6·3	9·1	14·5	0·4	3·1	1·9	230·1	159·4	475·0	61·3
Chemicals and Products	4·3	6·0	4·4	0·6	3·4	4·2	102·3	73·3	700·0	123·5
Miscellaneous	13·2	17·1	10·4	1·0	6·9	2·7	78·7	60·8	270·0	39·1
Total	132·1	213·9	185·9	215·2	312·8	410·7	140·3	75·4	190·8	131·3
(c) With the United States.										
Agricultural and Vegetable Products.	44·1	119·6	102·2	34·1	146·5	56·1	231·7	85·4	164·5	38·2
Animals and Products	23·3	42·9	40·6	32·3	75·8	92·3	174·2	94·6	285·7	121·6
Fibres and Textiles	32·5	101·7	69·4	1·2	7·1	4·9	213·5	68·2	408·3	69·0
Wood and Paper	31·7	52·4	44·0	45·2	216·0	239·0	138·8	84·0	528·7	110·7
Iron and Products	121·4	226·9	234·0	2·0	19·7	8·8	192·7	103·1	440·0	144·6
Non-Ferrous Metals	27·7	46·0	48·4	34·2	30·0	44·1	174·7	105·2	128·9	147·0
Non-Metallic Minerals	74·2	188·4	117·4	7·2	22·3	15·5	158·2	62·3	215·2	69·5
Chemicals and Products	9·6	28·1	22·2	3·2	12·2	8·7	231·2	79·0	271·9	71·3
Miscellaneous	31·8	50·2	41·2	4·0	12·7	8·6	129·5	82·0	215·0	67·7
Total	396·3	856·2	719·4	163·4	542·3	478·0	181·5	84·0	292·5	88·1

The statistics of the following table indicate the trend of Canadian trade from 1914 to 1928, (a) with all countries; (b) with the United Kingdom; and (c) with the United States.

SUMMARY OF TREND OF CANADIAN TRADE, 1914 TO 1928.
(Values in Millions of Dollars.)

Years ended Mar. 31.	Imports into Canada.				Exports from Canada.			Excess of Imports (i) Exports (e).	Percentage relation of exports to imports.
	Dutiable goods.	Free goods.	Total imports.	Per cent free.	Canadian produce.	Foreign produce.	Total exports.		
(a) With All Countries.									
1914	410·3	208·9	619·2	33·7	431·6	23·8	455·4	(i) 163·8	73·5
1915	279·8	176·1	455·9	38·6	409·4	52·0	461·4	(e) 5·5	101·2
1916	289·4	218·8	508·2	43·0	741·6	37·7	779·3	(e) 271·1	153·3
1917	461·7	384·7	846·4	45·4	1,151·4	27·8	1,179·2	(e) 332·8	139·3
1918	542·3	421·2	963·5	43·7	1,540·0	46·1	1,586·1	(e) 622·6	164·6
1919	526·5	393·2	919·7	42·7	1,216·4	52·3	1,268·7	(e) 349·0	137·9
1920	693·6	370·9	1,064·5	34·8	1,239·5	47·1	1,286·6	(e) 222·1	120·9
1921	847·5	392·6	1,240·1	31·6	1,189·2	21·2	1,210·4	(i) 29·7	97·6
1922	495·6	252·2	747·8	33·7	740·2	13·7	753·9	(e) 6·1	100·8
1923	537·3	265·3	802·6	33·0	931·5	13·8	945·3	(e) 142·7	117·7
1924	591·3	302·1	893·4	33·8	1,045·4	13·4	1,058·8	(e) 165·4	118·5
1925	516·0	280·9	796·9	35·1	1,069·1	12·3	1,081·4	(e) 284·5	135·7
1926	583·0	344·3	927·3	37·1	1,315·4	13·3	1,328·7	(e) 401·4	143·1
1927	659·9	371·0	1,030·9	36·0	1,252·2	15·4	1,267·6	(e) 236·7	123·0
1928	710·0	398·9	1,109·0	36·0	1,228·2	22·2	1,250·5	(e) 141·5	112·8
(b) With the United Kingdom.									
1914	102·4	29·7	132·1	22·5	215·2	7·1	222·3	(e) 90·2	167·5
1915	68·0	22·1	90·1	24·5	186·6	25·1	211·7	(e) 121·6	234·9
1916	52·0	25·4	77·4	32·8	451·9	11·2	463·1	(e) 385·7	598·3
1917	75·5	31·6	107·1	29·5	742·1	13·9	756·0	(e) 648·9	705·9
1918	58·0	23·3	81·3	28·6	845·5	15·6	861·1	(e) 779·8	1,059·1
1919	50·0	23·0	73·0	31·5	540·7	20·1	560·8	(e) 487·8	768·2
1920	93·2	33·1	126·3	26·2	489·2	6·8	496·0	(e) 369·7	392·7
1921	170·1	43·8	213·9	20·5	312·8	1·4	314·2	(e) 100·3	146·9
1922	95·1	22·0	117·1	18·8	299·4	1·0	300·4	(e) 183·3	256·5
1923	116·2	25·1	141·3	17·7	379·1	0·8	379·9	(e) 238·6	268·8
1924	126·1	27·5	153·6	17·8	360·1	1·1	361·2	(e) 207·6	235·1
1925	124·7	26·4	151·1	17·5	395·9	1·3	397·2	(e) 246·1	262·8
1926	133·1	30·6	163·7	18·6	508·2	1·1	509·3	(e) 345·6	311·1
1927	135·0	28·9	163·9	17·6	446·9	1·1	448·0	(e) 284·1	273·3
1928	150·1	35·8	185·9	19·3	410·7	2·1	412·8	(e) 226·9	222·1
(c) With the United States.									
1914	249·5	146·8	396·3	37·0	163·4	13·6	177·0	(i) 219·3	44·6
1915	168·6	128·5	297·1	43·2	173·3	13·0	186·3	(i) 110·8	62·7
1916	199·5	171·4	370·9	46·2	201·1	15·6	216·7	(i) 154·2	58·4
1917	332·0	333·3	665·3	50·1	280·6	10·0	290·6	(i) 374·7	43·7
1918	429·3	363·6	792·9	45·8	417·2	23·6	440·8	(i) 352·1	55·6
1919	416·5	333·7	750·2	44·5	454·9	22·8	477·7	(i) 272·5	63·7
1920	499·7	301·4	801·1	37·6	464·0	37·1	501·1	(i) 300·0	62·5
1921	544·0	312·2	856·2	36·5	542·3	18·4	560·7	(i) 295·5	65·5
1922	312·1	203·9	516·0	39·5	292·6	11·5	304·1	(i) 211·9	58·9
1923	332·2	208·8	541·0	38·6	369·1	11·2	380·3	(i) 160·7	70·3
1924	355·9	245·3	601·2	40·8	430·7	10·9	441·6	(i) 159·6	73·4
1925	287·1	222·7	509·8	43·7	417·4	9·8	427·2	(i) 82·6	83·8
1926	338·0	270·7	608·6	44·5	474·9	11·0	485·9	(i) 123·8	79·7
1927	392·7	294·3	687·0	42·9	466·4	12·9	479·3	(i) 208·4	69·7
1928	416·0	303·4	719·4	42·2	478·0	18·6	496·6	(i) 222·8	69·0

Subsection 2.—General Analysis of Current Import and Export Trade.

The external trade of Canada, in common with that of every other country in the world, suffered a severe decline, both in volume and in value, following the

war. The decline in value was, however, owing to lower prices, very much greater than that in volume, as is shown in Table 35 of this section.

The foreign trade of Canada during the fiscal year ended Mar. 31, 1928, reached a greater physical volume than in any previous year. The increase in imports was responsible for this improvement, as there was a slight decline in exports.

The average level of prices has changed only moderately during the past three or four years. On the other hand, a comparison with pre-war years, and with the period during and immediately following the war, shows that changes in the level of prices have materially affected the comparability of trade statistics. Figures compiled for each fiscal year, 1921 to 1928, based on 1914 average import and export values, show that Canada's import trade in 1928, revalued at 1914 average import values, was $97,907,000 greater than for the high record year 1927, while the export trade in 1928, revalued at 1914 average export values, was only $27,766,000 less than for the year 1926. The particulars are set forth in the following table:—

Fiscal Years.	Imports.		Exports (Canadian).	
	Declared Values.	Based on 1914 Average Values.	Declared Values.	Based on 1914 Average Values.
	$	$	$	$
1914	619,194,000	619,194,000	431,589,000	431,589,000
1921	1,240,159,000	611,286,000	1,189,163,000	543,224,000
1922	747,804,000	505,128,000	740,241,000	497,546,000
1923	802,579,000	592,952,000	931,451,000	692,871,000
1924	893,367,000	637,893,000	1,045,351,000	801,452,000
1925	796,933,000	597,298,000	1,069,067,000	762,941,000
1926	927,329,000	705,044,000	1,315,356,000	897,216,000
1927	1,030,893,000	841,452,000	1,252,158,000	875,041,000
1928	1,108,956,000	939,359,000	1,228,208,000	869,450,000

The foregoing table shows that the total foreign trade of Canada, from 1921 to 1928, on the basis of declared values, has decreased about 3·8 p.c., but when allowance has been made for the fluctuation in import and export prices, it has increased about 56·7 p.c. During the same period imports show a decrease at current prices of about 10·5 p.c. and exports an increase of about 3·3 p.c., but when price changes have been eliminated, imports show an increase of about 53·7 p.c., and exports of about 60·1 p.c.

Analysis of Canadian Trade.—The total trade of Canada for the fiscal year ended Mar. 31, 1928, was valued at $2,359,412,763, compared with $2,298,465,647 in 1927, and $2,256,028,869 in 1926; the increase over 1927 amounting to $60,947,116 or 2·5 p.c., and over 1926 to $103,383,894 or 4·6 p.c. Imports in 1928 show a decided improvement over 1927 and 1926, while exports show a decline. Imports in 1928 amounted to $1,108,956,466, compared with an importation in 1927 valued at $1,030,892,505, and in 1926 at $927,328,732, the increase in the imports over 1927 amounting to $78,063,961 or 7·3 p.c., and over 1926 to $181,627,734 or 19·6 p.c. Export trade (domestic and foreign combined) was valued at $1,250,456,297 in 1928, at $1,267,573,142 in 1927, and $1,328,700,137 in 1926; the decrease in 1928 compared with 1927 amounting to $17,116,845 or 1·4 p.c. and compared with 1926 to $78,243,840 or 5·9 p.c. The domestic exports of Canada in 1928 totalled $1,228,207,606, in 1927 $1,252,157,506, and in 1926 $1,315,355,791; the decrease in 1928 compared with 1927 amounting to $23,949,900 or 1·9 p.c., and with 1926 to $87,148,185 or 6·7 p.c.

Statistical Tables of Current Trade.—Tables **10** to **18** of this section deal with the current trade statistics of the Dominion. Tables **10** and **11** are summary tables, showing by groups our trade with the United Kingdom, the United States and all countries, by values and percentages, for the last four years. Table **12** shows the same in detail for exports and Table **13** for imports of all important articles. Table **14** shows by main classes imports as dutiable and free and exports as of Canadian and foreign produce for the five fiscal years ended 1928. Table **15** shows imports and exports for the fiscal year ended 1928 by degree of manufacture and by origin, and Table **16** gives similar information on a classification according to purpose. Table **17** gives our imports and exports for the two latest years by ports and provinces and Table **18** shows the values imported from different countries under the preferential, treaty rate and general tariffs in 1927 and 1928.

Subsection 3.—Trade with the United Kingdom and the British Empire.

Trade with the United Kingdom.—The total trade of Canada with the United Kingdom for the year ended Mar. 31, 1928, was valued at $598,659,000, compared with $611,958,000 in 1927, and $672,997,000 in 1926; the decrease in 1928 compared with 1927 being $13,299,000 or 2·2 p.c. and with 1926 $74,338,000 or 11·0 p.c. Imports from the United Kingdom in 1928 amounted to $185,896,000, compared with $163,939,000 in 1927 and $163,731,000 in 1926; the increase in 1928 over 1927 amounting to $21,957,000 or 13·4 per cent, and over 1926 to $22,165,000 or 13·5 per cent. Total exports to the United Kingdom in 1928 totalled $412,763,000, in 1927 $448,019,000, and in 1926 $509,266,000; the decrease in 1928 compared with 1927 being $35,256,000 or 7·9 per cent and 1926 $96,503,000 or 18·9 per cent.

Imports from the United Kingdom show increases in 1928 over 1927 in seven of the main groups as follows:—Agricultural and Vegetable Products, $12,880,000; Animal Products, $686,000; Wood and Paper Products, $442,000; Iron and Its Products, $2,717,000; Non-Ferrous Metals, $152,000; Non-Metallic Minerals, $5,214,000; and Miscellaneous Commodities, $1,632,000. Imports of Fibres and Textile Products decreased by $1,288,000 and Chemical Products by $485,000.

Canada's domestic exports to the United Kingdom increased in 1928 as compared with 1927 under five of the main groups as follows:—Fibres and Textiles, $1,037,000; Wood and Paper Products, $1,336,000; Iron and Its Products, $66,000; Non-Ferrous Metals, $1,522,000; and Chemical Products, $667,000. Four main groups show decreases as follows:—Agricultural and Vegetable Products, $19,851,000; Animal Products, $19,136,000; Non-Metallic Minerals, $391,000; and Miscellaneous Commodities, $1,423,000. For details see Tables **12** and **13** of this chapter.

Trade of Canada with the British Empire.—Canada was the first of the British Dominions to grant a preference to goods the produce and manufacture of the United Kingdom and reciprocating British Dominions and possessions. This preference was extended by Order in Council from time to time to other portions of the British Empire until now it is applicable to practically every British Dominion and possession, except Newfoundland. In the case of Newfoundland, however, Canada grants free admission to fish and fish products. Australia receives special concessions under the Trade Agreement of 1925.

The preference has stimulated imports from the United Kingdom and British Dominions and possessions since its inception in 1897. In 1896 imports from the United Kingdom amounted to only $32,824,505 and from other portions of the Empire to $2,388,647. A decade later the imports from the United Kingdom

had increased to $69,183,915 and from other portions of the Empire to $14,605,519. In 1928 the imports from the United Kingdom (including Irish Free State) were $185,918,192 and from other portions of the Empire $63,161,860. In 1896 the proportion of Canada's imports from the British Empire as a whole was 33·3 p.c. and in 1928 only 22·5 p.c. The proportion of the Dominion's imports from portions of the Empire other than the United Kingdom in 1896 was 2·2 p.c. and in 1928 5·7 p.c.

The exports of Canadian produce to the United Kingdom in 1896 were valued at $62,717,941 and to other portions of the Empire at $4,048,198. In 1906 the exports to the United Kingdom had increased to $127,456,465 and to other portions of the Empire to $10,964,757. In the fiscal year 1928 the exports to the United Kingdom (including Irish Free State) were $415,029,404 and to other portions of the Empire $84,247,972. The proportion of Canada's domestic exports to the Empire as a whole shrank from 60·8 p.c. in 1896 to 40·7 p.c. in 1928. This shrinkage occurred in the exports to the United Kingdom, as the proportion of exports to other portions of the Empire rose from 3·7 p.c. in 1896 to 6·9 p.c. in 1928. The trade of Canada with the British Empire for the fiscal years 1886, 1896, 1906, 1914, 1922 and 1928 was as under:—

TRADE OF CANADA WITH THE BRITISH EMPIRE.

NOTE.—For comparative purposes the trade of Canada with the Irish Free State in 1928 is included with the United Kingdom.

Items and years.	Canadian Trade with—			Percentage of Total.		
	United Kingdom.	Other British Empire.	Total British Empire.	United Kingdom.	Other British Empire.	Total British Empire.
	$	$	$	p.c.	p.c.	p.c.
Imports.						
1886	39,033,006	2,383,560	41,416,566	40·7	2·5	43·2
1896	32,824,505	2,388,647	35,213,152	31·1	2·2	33·3
1906	69,183,915	14,605,519	83,789,434	24·4	5·1	29·5
1914	132,070,406	22,456,440	154,526,846	21·3	3·6	24·9
1922	117,135,343	31,973,910	149,109,253	15·7	4·3	20·0
1928	185,918,192	63,161,860	249,080,052	16·8	5·7	22·5
Exports (Canadian).						
1886	36,694,263	3,262,803	39,957,066	47·2	4·2	51·4
1896	62,717,941	4,048,198	66,766,139	57·1	3·7	60·8
1906	127,456,465	10,964,757	138,421,222	54·1	4·6	58·7
1914	215,253,969	23,388,548	238,642,517	49·8	5·4	55·2
1922	299,361,675	46,473,735	345,835,410	40·4	6·3	46·7
1928	415,029,404	84,247,972	499,277,376	33·8	6·9	40·7

For further details of trade in recent years with various countries of the British Empire see Tables **18-33** of this chapter.

Regarding the relation between the trade in raw and that in manufactured products with the British Empire, an analysis will show that the bulk of the imports into Canada from the United Kingdom consists of manufactured products, whereas the imports from other portions of the British Empire are made up chiefly of raw materials and products in a semi-manufactured condition. The exports to the United Kingdom are composed principally of raw materials and semi-manufactured products, while the exports to other portions of the British Empire consist chiefly of manufactured products. During the fiscal year ended 1926 the relation between

the trade in raw and manufactured products with the United Kingdom and other countries of the British Empire was:—

—	Imports.		Exports.	
	United Kingdom.	Other British Empire.	United Kingdom.	Other British Empire.
	p.c.	p.c.	p.c.	p.c.
Raw materials	8·2	70·6	66·8	21·9
Partly manufactured	5·2		5·1	
Fully manufactured	86·6	29·4	28·1	78·1

The character of Canadian trade with other parts of the Empire bears out the claim that Canada is the second most important manufacturing country within the British Empire.

Subsection 4.—Trade with the United States and Other Foreign Countries.

Trade with the United States.—Canada's total trade with the United States during the year ended Mar. 31, 1928, was valued at $1,216,081,000, compared with $1,166,357,000 in 1927 and $1,094,570,000 in 1926; the increase over 1927 being $49,724,000 or 4·4 p.c., and over 1926 $121,511,000 or 11·1 p.c. In 1928 Canada's imports from the United States were valued at $719,436,000, in 1927 at $687,022,000, and in 1926 at $608,618,000; the increase in 1928 compared with 1927 amounting to $32,414,000 or 4·7 p.c., and with 1926 to $110,818,000 or 18·2 p.c.; whereas the total exports to the United States amounted to $496,645,000 in 1928, to $479,335,000 in 1927, and to $485,952,000 in 1926; the increase in 1928 over 1927 being $17,310,000 or 3·6 p.c., and over 1926 $10,693,000 or 2·2 p.c. The exports of Canadian produce to the United States in 1928 totalled $478,004,000, in 1927 $466,422,000, and in 1926 $474,987,000; the increase in 1928 compared with 1927 amounting to $11,582,000 or 2·5 p.c., and with 1926 to $3,017,000 or 0·7 p.c.

In 1928 imports from the United States increased as compared with 1927 under seven of the main groups as follows:—Agricultural and Vegetable Products, $5,105,000; Animal Products, $5,145,000; Fibres and Textiles, $2,505,000; Wood and Paper Products, $2,870,000; Iron and its Products, $27,336,000; Non-Ferrous Metals, $6,160,000; and Chemical Products, $1,623,000. Non-Metallic Minerals decreased $14,507,000 and Miscellaneous Commodities, $3,816,000.

Exports of Canadian produce to the United States increased in 1928 over 1927 under four of the main groups as follows:—Animal Products, $16,924,000; Fibres and Textiles, $1,471,000; Non-Ferrous Metals, $5,107,000; and Chemical Products, $586,000. Five of the main groups decreased as follows:—Agricultural and Vegetable Products, $3,866,000; Wood and Paper Products, $3,033,000; Iron and its Products, $1,849,000; Non-Metallic Minerals, $1,742,000; and Miscellaneous Commodities, $2,014,000. For details see Tables **12** and **13** of this chapter.

Canadian Trade via the United States.—Imports from overseas countries *via* the United States have steadily declined in recent years, especially those from the British Empire. This decrease has followed (1) general propaganda to utilize Canadian sea and river ports, and (2) additional concessions to goods imported under the Preferential Tariff if they come direct. Provision has been made in trade

treaties and agreements negotiated with foreign countries that goods must be imported *via* a Canadian sea or river port in order to obtain the full benefits of special rates of duty. There was a decrease in imports *via* the United States of $643,626 in 1928 compared with 1927, the decrease in the imports from the British Empire amounting to $1,545,840, while such imports from foreign countries show an increase of $902,214, as follows:—

IMPORTS INTO CANADA *VIA* THE UNITED STATES.

Imports from—	Years ended Mar. 31—			
	1925.	1926.	1927.	1928.
United Kingdom *via* United States..... $	554,532	1,853,066	728,001	773,694
Per cent Total Imports from United Kingdom....	0·4	1·1	0·41	0·42
Other British Empire *via* United States..... $	3,779,361	6,260,189	3,832,540	2,241,007
Per cent of Total Imports from Other British Empire.....	8·6	14·2	7·71	3·55
Foreign Countries *via* United States..... $	7,281,781	6,106,030	8,200,679	9,102,893
Per cent of Total Imports from Foreign Countries.	7·9	5·5	6·3	6·48
Total Imports *via* United States..... $	11,615,674	14,219,285	12,761,220	12,117,594
Per cent of Total Imports from Overseas Countries	4·2	4·5	3·7	3·11

The proportion of exports from Canada to overseas countries *via* the United States continues to remain about stationary, the percentages for the past three fiscal years being:—1926, 39·2; 1927, 39·5; 1928, 38·9. The value of commodities thus exported to overseas countries in 1928 was $18,677,477 less than in 1927. Decreases in wheat and wheat flour amounted to $17,841,028. Exports *via* the United States to the United Kingdom and to overseas foreign countries decreased in 1928 as compared with 1927, while those to other countries of the British Empire increased.

Comparisons for four years are as follows :—

EXPORTS FROM CANADA *VIA* THE UNITED STATES.

Exports to—	Years ended Mar. 31—			
	1925.	1926.	1927.	1928.
United Kingdom *via* United States..... $	173,556,264	237,327,986	216,313,069	201,784,594
Per cent Total Exports to United Kingdom.....	43·7	46·6	48·4	49·1
Other British Empire *via* United States..... $	18,350,573	22,157,401	23,549,163	26,762,373
Per cent of Total Exports to Other British Empire.	23·1	24·3	25·1	30·2
Foreign Countries *via* United States..... $	65,452,730	70,466,599	70,422,646	63,060,434
Per cent of Total Exports to Foreign Countries....	36·9	29·1	28·7	25·1
Total Exports *via* United States..... $	257,359,567	329,951,986	310,284,878	291,607,401
Per cent of Total Exports to Overseas Countries...	39·3	39·2	39·5	38·9

Details by countries are given in Table 21 of this chapter.

Trade with Other Foreign Countries.—The relative changes in the positions occupied by the United States and other foreign countries in Canada's trade during the period of over 42 years from 1886 to 1928 are shown in the following table. Imports from the United States have increased from about 45 p.c. to nearly 65 p.c. of total imports, while imports from other foreign countries have remained fairly constant around 12 p.c. In the case of Canadian exports, on the other hand, those to the United States have remained at about 40 p.c. of the total, while those to other foreign countries have increased from less than 5 p.c. to over 20 p.c. of total Canadian exports.

TRADE OF CANADA WITH THE UNITED STATES AND OTHER FOREIGN COUNTRIES.
(Fiscal Years 1886, 1896, 1906, 1914, 1922 and 1928).

Fiscal Years.	Canadian Trade with—			Percentage of Total Trade with—		
	United States.	Other Foreign Countries.	Total Foreign Countries.	United States.	Other Foreign Countries.	Total Foreign Countries.
	$	$	$	p.c.	p.c.	p.c.
Imports.						
1886	42,818,651	11,756,920	54,575,571	44·6	12·2	56·8
1896	53,529,390	16,618,619	70,148,009	50·8	15·8	66·6
1906	169,256,452	30,694,394	199,950,846	59·6	10·9	70·5
1914	396,302,138	68,365,014	464,667,152	64·0	11·0	75·0
1922	515,958,196	82,736,883	598,695,079	69·0	11·0	80·0
1928	719,443,513	140,432,901	859,876,414	64·9	12·6	77·5
Exports (Canadian).						
1886	34,284,490	3,515,148	37,799,638	44·1	4·5	48·6
1896	37,789,481	5,152,185	42,941,666	34·4	4·7	39·1
1906	83,546,306	13,516,428	97,062,734	35·5	5·8	41·3
1914	163,372,825	29,573,097	192,945,922	37·9	6·8	44·7
1922	292,588,643	101,816,627	394,405,270	39·5	13·8	53·3
1928	478,006,114	250,924,116	728,930,230	38·9	20·4	59·3

With further reference to the trade of Canada with other countries than the United Kingdom and the United States, attention is directed to Tables 22 to 33, giving the trade of Canada in leading commodities with 36 British and foreign countries for the fiscal years 1927 and 1928.

Subsection 5.—Geographical Distribution of Canadian Trade by Continents and Countries.

Geographical Distribution of Canadian Trade by Continents.—Europe is Canada's best customer, but we purchase more goods from North America than from any other continent. It will be noted in the following table that in 1928 Europe and North America took 89·1 p.c. of the Dominion's exports, as compared with 88·6 p.c. in 1927 and 88·5 p.c. in 1926. The proportion shipped to Europe in 1928 was 46·9 p.c., compared with 48·2 p.c. in 1927 and 49·3 p.c. in 1926; while the proportion sent to North America in 1928 was 42·2 p.c., compared with 40·4 p.c. in 1927 and 39·2 p.c. in 1926. Europe and North America furnished Canada in 1928 with 92·2 p.c. of her imports as compared with 93·6 p.c. in 1927 and 93·6 p.c. in 1926. The proportion furnished by Europe in 1928 was 24·5 p.c., as compared with 23·5 p.c. in 1927 and 24·1 p.c. in 1926, while the proportion furnished by North America in 1928 was 67·7 p.c., compared with 70·1 p.c. in 1927 and 69·5 p.c. in 1926. The imports from every continent in 1928 show an increase over 1926 and 1927, except in the case of Asia in 1926, while Canada sold more goods in 1928 than in 1927 or 1926 to North America and Africa, more than in 1927 but less than in 1926 to Asia and less than in either of the two previous years to Europe, South America and Oceania. Imports from the continents of South America, Asia, Occania and Africa increased from $59,300,000 to $87,100,000 from 1926 to 1928, while Canadian exports to the same continents between 1926 and 1928 decreased from $150,500,000 to $134,300,000.

TRADE OF CANADA, BY CONTINENTS, 1926, 1927 AND 1928.

(With proportion of Trade with each Continent.)

Continents.	Imports for Consumption.						Exports (Canadian).					
	Value. (Million $).			Per cent of Total.			Value. (Million $).			Per cent of Total.		
	1926.	1927.	1928.	1926.	1927.	1928.	1926.	1927.	1928.	1926.	1927.	1928.
Europe—												
United Kingdom	163·7	163·9	185·9	17·6	15·9	16·8	508·2	446·9	410·7	38·6	35·7	33·4
Other Europe....	59·7	78·1	85·8	6·5	7·6	7·7	140·3	155·9	164·1	10·7	12·5	13·5
North America—												
United States....	608·9	687·0	719·5	65·7	66·7	64·9	474·9	466·4	478·0	36·1	37·2	38·9
Other North America.....	34·9	34·7	30·6	3·8	3·4	2·8	41·3	39·8	41·1	3·1	3·2	3·3
South America....	17·1	20·0	32·4	1·9	1·9	2·9	27·4	32·9	27·4	2·1	2·6	2·2
Asia.....	32·7	32·0	32·4	3·5	3·1	2·9	77·2	63·5	65·7	5·9	5·1	5·4
Oceania.....	8·7	12·5	18·3	0·9	1·2	1·6	32·6	33·2	26·3	2·5	2·6	2·1
Africa.....	0·8	2·7	4·0	0·1	0·2	0·4	13·3	13·5	14·9	1·0	1·1	1·2
Total.....	927·4	1,030·9	1,108·9	100·0	100·0	100·0	1,315·2	1,252·1	1,228·2	100·0	100·0	100·0

See also Tables **19** and **20** of this chapter.

Imports from Principal Countries.—Increases are shown in Canada's imports from 26 of the 35 principal countries in 1928. Of the total increase in imports in 1928, amounting to $78,063,000, the British Empire accounted for $35,011,000 and foreign countries for $43,052,000. The principal countries to show increases were:—United States $32,421,000; United Kingdom $21,950,000; Colombia $6,463,000; Argentina $4,193,000; New Zealand $3,684,000; Fiji $3,087,000; France $2,482,000; Barbados $2,425,000; Germany $2,026,000; British Guiana $1,480,000; British India $1,359,000 and Japan $1,335,000; while the principal countries to show decreases were:—Santo Domingo $3,563,000; Cuba $2,490,000; China $2,470,000 and Mexico $1,199,000. During 1928 many changes took place in the principal markets whence Canada received her supplies. The table "Canada's Imports from Thirty-Five Leading Countries, 1928" indicates that the United States and the United Kingdom supplied Canada with 81·7 p.c. of her imports. Since 1882 the United States have held first place in Canada's import trade, the United Kingdom being second. As regards other markets, France has occupied third place for the past four years; Germany was in fourth place in 1927 and 1928, advancing from fifth place in 1926 and ninth place in 1925; Japan and Belgium occupied fifth and sixth places respectively in 1927 and 1928; Argentina has displaced Switzerland, moving from fourteenth place in 1927 to seventh place in 1928; British India was eighth and the Netherlands ninth in 1928.

CANADA'S IMPORTS FROM THIRTY-FIVE LEADING COUNTRIES, 1928.

NOTE.—Countries arranged in order of importance, 1928.

Rank.		Countries.	Value of Imports.	Increase (+) or Decrease (−) 1928 compared with 1927.	Per cent of Total Imports.	
1927	1928				1927.	1928.
			$	$	p.c.	p.c.
1	1	United States	719,444,000	(+) 32,421,000	66·7	64·9
2	2	United Kingdom	185,889,000	(+) 21,950,000	15·9	16·8
3	3	France	26,474,000	(+) 2,482,000	2·3	2·4
4	4	Germany	17,056,000	(+) 2,026,000	1·5	1·6
5	5	Japan	12,505,000	(+) 1,335,000	1·1	1·1
6	6	Belgium	9,944,000	(+) 281,000	1·0	0·9
14	7	Argentina	9,850,000	(+) 4,193,000	0·5	0·9
9	8	British India	9,240,000	(+) 1,359,000	0·8	0·8
10	9	Netherlands	8,749,000	(+) 1,055,000	0·8	0·8
7	10	Switzerland	8,596,000	(−) 896,000	0·9	0·8
18	11	New Zealand	8,262,000	(+) 3,684,000	0·4	0·7
33	12	Colombia	7,580,000	(+) 6,463,000	0·1	0·7
19	13	Barbados	6,216,000	(+) 2,425,000	0·4	0·6
17	14	British Guiana	6,072,000	(+) 1,480,000	0·4	0·5
8	15	Cuba	5,587,000	(−) 2,490,000	0·8	0·5
16	16	Jamaica	5,481,000	(+) 721,000	0·5	0·5
11	17	Australia	5,302,000	(−) 994,000	0·6	0·5
13	18	Peru	5,216,000	(−) 677,000	0·6	0·5
32	19	Fiji	4,318,000	(+) 3,087,000	0·1	0·4
20	20	Italy	4,242,000	(+) 798,000	0·3	0·4
24	21	British West Indies, Other	3,553,000	(+) 1,067,000	0·2	0·3
23	22	Ceylon	2,732,000	(+) 119,000	0·3	0·2
15	23	China	2,572,000	(−) 2,470,000	0·5	0·2
26	24	Spain	2,572,000	(+) 351,000	0·2	0·2
22	25	British Straits Settlements	2,459,000	(−) 298,000	0·3	0·2
12	26	Santo Domingo	2,453,000	(−) 3,563,000	0·6	0·2
29	27	Czechoslovakia	2,424,000	(+) 697,000	0·1	0·2
21	28	Trinidad and Tobago	2,099,000	(−) 722,000	0·3	0·2
28	29	Newfoundland	2,098,000	(+) 229,000	0·2	0·2
27	30	Brazil	2,088,000	(+) 118,000	0·2	0·2
30	31	British West Africa	1,939,000	(+) 909,000	0·1	0·2
30	32	Sweden	1,862,000	(+) 218,000	0·1	0·2
31	33	Hong Kong	1,441,000	(+) 19,000	0·1	0·1
40	34	British East Africa	1,223,000	(+) 746,000	–	0·1
25	35	Mexico	1,174,000	(−) 1,199,000	0·2	0·1
		Total from above 35 Countries	1,098,712,000	(+) 76,924,000	99·1	99·1
		Total Imports	1,108,956,000	(+) 78,063,000	100·0	100·0
		British Empire	249,080,000	(+) 35,011,000	20·7	22·5
		Foreign Countries	859,876,000	(+) 43,052,000	79·3	77·5

Exports to Principal Countries.—During 1928 exports of domestic produce show a decrease of $23,950,000 compared with 1927, but an increase over the year 1925 of $159,141,000. Decreases occurred in exports to 19 of the 40 principal countries, whereas 21 show increases. Of the total decreases, that in the exports to the British Empire amounted to $41,160,000, while there was an increase in the exports to foreign countries of $17,210,000. The principal countries to show decreases were:—United Kingdom $36,169,000; France $5,274,000; Australia $4,774,000; Italy $4,072,000; Brazil $2,394,000; New Zealand $2,172,000; Argentina $2,016,000; Greece $1,741,000; Irish Free State $1,732,000; Cuba $1,441,000; Dutch East Indies $1,288,000; and Uruguay $1,158,000. Principal countries to show increases were:—United States $11,583,000; the Netherlands $9,164,000; Germany $7,833,000; Japan $3,028,000; Norway $1,638,000; Sweden $1,196,000; British India $1,048,000; and Hong Kong $1,006,000.

Many changes have taken place in the chief markets to which Canada shipped her products in 1928. The table "Canada's Domestic Exports to Forty Leading Countries, 1928" shows that the United States and the United Kingdom took 72·4

p.c. of the Dominion's exports. The United States occupied first place in 1928 as in 1925 and 1927, though she was in second place in 1926, while the United Kingdom occupied second place in 1928 as in 1925 and 1927, but first place in 1926. Of the other leading markets for Canadian products, Germany occupied third place in 1928, as also in 1925 and 1927, but fourth place in 1926; the Netherlands moved from fifth up to fourth place, displacing Japan; Japan was fifth in 1928, fourth in 1925 and 1926, and third in 1926; Belgium moved from seventh to sixth place, while she was fifth in 1925 and seventh in 1926; Italy occupied seventh place moving down from sixth place, while Australia occupied eighth place in 1928 as in 1927. In 1928 China, Newfoundland and New Zealand occupied ninth, tenth and eleventh places respectively, though in 1927 New Zealand was in tenth place, China in eleventh (but fifth in 1926), and Newfoundland in thirteenth place.

CANADA'S DOMESTIC EXPORTS TO FORTY LEADING COUNTRIES, 1928.

NOTE.—Countries arranged in order of importance, 1928.

Rank.		Countries.	Value of Exports.	Increase (+) or Decrease (−) 1928 compared with 1927.	Per cent of Total Exports.	
1927	1928				1927.	1928.
			$	$	p.c.	p.c.
1	1	United States	478,006,000	(+) 11,583,000	37·2	38·9
2	2	United Kingdom	410,704,000	(−) 36,169,000	35·7	33·5
3	3	Germany	42,244,000	(+) 7,833,000	2·7	3·4
5	4	Netherlands	35,538,000	(+) 9,164,000	2·0	2·9
4	5	Japan	32,957,000	(+) 3,028,000	2·4	2·7
7	6	Belgium	20,782,000	(−) 559,000	1·7	1·7
6	7	Italy	18,743,000	(−) 4,072,000	1·8	1·5
8	8	Australia	14,192,000	(−) 4,774,000	1·5	1·2
11	9	China	13,432,000	(−) 85,000	1·1	1·1
13	10	Newfoundland	11,661,000	(+) 491,000	0·9	1·0
10	11	New Zealand	11,367,000	(−) 2,172,000	1·1	0·9
12	12	Argentina	11,086,000	(−) 2,016,000	1·1	0·9
14	13	British India	11,043.000	(+) 1,048,000	0·8	0·9
9	14	France	9,946,000	(−) 5,274,000	1·2	0·8
15	15	British South Africa	8,725,000	(+) 336,000	0·7	0·7
21	16	Norway	6,666,000	(+) 1,638,000	0·4	0·5
20	17	Denmark	6,391,000	(+) 725,000	0·4	0·5
17	18	Cuba	5,387,000	(−) 1,441,000	0·5	0·4
22	19	Jamaica	4,984,000	(+) 676,000	0·4	0·4
16	20	Brazil	4,897,000	(−) 2,394,000	0·6	0·4
26	21	Sweden	4,612,000	(+) 1,196,000	0·3	0·4
19	22	Irish Free State	4,325,000	(−) 1,732,000	0·5	0·4
19	23	Greece	4,282,000	(−) 1,741,000	0·5	0·4
23	24	Trinidad and Tobago	4,241,000	(+) 400,000	0·3	0·4
24	25	British West Indies, Other	3,858,000	(+) 109,000	0·3	0·3
28	26	Mexico	2,540,000	(−) 221,000	0·2	0·2
37	27	Hong Kong	2,466,000	(+) 1,006,000	0·1	0·2
31	28	Russia	2,424,000	(+) 17,000	0·2	0·2
25	29	Dutch East Indies	2,364,000	(−) 1,288,000	0·3	0·2
30	30	British Guiana	2,285,000	(−) 124,000	0·2	0·2
34	31	Barbados	1,837,000	(+) 213,000	0·1	0·2
36	32	Egypt	1,798,000	(+) 312,000	0·1	0·1
39	33	Colombia	1,733,000	(+) 384,000	0·1	0·1
27	34	Uruguay	1,626,000	(−) 1,158,000	0·2	0·1
32	35	Venezuela	1,497,000	(−) 797,000	0·2	0·1
29	36	British Straits Settlements	1,492,000	(−) 968,000	0·2	0·1
53	37	Czechoslovakia	1,439,000	(+) 962,000	0·1	0·1
40	38	Bermuda	1,365,000	(+) 78,000	0·1	0·1
38	39	Peru	1,286,000	(−) 121,000	0·1	0·1
46	40	British East Africa	1,239,000	(+) 589,000	0·1	0·1
		Total to above 40 Countries	1,207,460,000	(−) 25,318,000	98·4	98·3
		Total Exports (Domestic)	1,228,208,000	(−) 23,950,000	100·0	100·0
		British Empire	499,278,000	(−) 41,160,000	43·2	40·7
		Foreign Countries	728,930,000	(+) 17,210,000	56·8	59·3

Statistical Tables of Trade by Countries.—Statistics showing the course of import and export trade during the last five fiscal years by countries with which Canada carries on trade will be found in Tables **19** (imports) and **20** (exports). Table **21** shows by countries the values of goods imported into and exported from Canada *via* the United States for the last two fiscal years.

Finally, the trade of Canada with the leading countries with which she trades (other than the United Kingdom and the United States, which are exhaustively dealt with in Tables **12** and **13**), is analysed by countries and by leading commodities in Tables **22-33**, for the last two fiscal years. Historical tables showing our trade with these and other countries in each year since Confederation will be found on pp. 13-19 of the annual report of the Trade of Canada for 1928, published by and obtainable from the Dominion Bureau of Statistics.

Subsection 6.—Principal Commodities Imported and Exported.

Canada's Principal Imports.—The table giving "One Hundred Leading Commodities Imported into Canada, 1928" shows that the total value of these commodities amounted to $918,063,000 or 82·8 p.c. of Canada's total imports. Of the one hundred commodities listed 65 show increases in value and 35 decreases. Of the 52 commodities for which there were quantity statistics one only shows decrease in quantity but increase in value; 5 show increases in quantity and decreases in value, while 29 show increases in both quantity and value and 17 decreases in both quantity and value. Of the 48 commodities for which there were no quantity statistics 35 show increases and 13 decreases.

In the case of the 46 commodities that show either an increase in both quantity and value or a decrease in both quantity and value, the price per unit for 26 was less in 1928 than in 1927. The 26 commodities imported of which the average import price was lower in 1928 than in 1927, were:—alumina, bars and rods (iron and steel), binder twine, canned vegetables, coal, dress goods (wool) to be dyed, dried fruits, dyeing and tanning materials, grey cottons, hemp, iron ore, jute canvas or cloth, molasses, pigs and ingots (iron and steel), planks and boards, plates and sheets, printed or dyed cottons, raw silk, rice, soda and sodium compounds, structural iron and steel, tea, tin ingots, vegetable oil, woollen yarns, and worsteds and serges. Twenty commodities account for nearly 50 p.c. of Canada's total imports. These commodities in order of importance were:—coal, machinery, spirits and wines, automobiles, crude petroleum oil, raw sugar, automobile parts, farm implements, green fruits, raw cotton, plates and sheets (iron and steel), raw rubber, silk fabrics, electric apparatus, engines and boilers, raw furs, books and printed matter, raw hides, worsteds and serges, and corn.

The increase in the Dominion's total imports for the fiscal year 1928 over 1927, amounting to $78,063,000, was only partly due to increased imports for the use of Canadian industries. The total value of the 63 commodities listed as for Canadian industries amounted to $358,767,000 or 32·3 p.c. of the total imports, while the increase in these commodities was $15,846,000 or 20·3 p.c. of the increase in total imports. According to degree of manufacture the imports of the 63 commodities for Canadian industries mentioned may be apportioned as follows:—raw materials, $179,885,000 or 50·1 p.c.; semi-manufactured, $92,449,000 or 25·8 p.c.; fully manufactured, $86,433,000 or 24·1 p.c.

The increase in the 63 commodities for use in Canadian industries in 1928 over 1927 amounted to $15,846,000. The amount of increase in other imports, amounting

to $62,217,000, was made up chiefly of two general categories, *viz.*:—(1) commodities not indigenous to Canada or not strictly regarded as trade in the general acceptation of the term, such as fresh and dried tropical fruits, nuts, corn, rice, etc., also settlers' effects, containers, menageries, etc.; (2) manufactured commodities.

ONE HUNDRED LEADING COMMODITIES IMPORTED INTO CANADA, BY VALUES, 1928.

Commodities.	Value.	Commodities.	Value.
	$		$
Coal (except for ships' stores)	58,269,078	Meats	4,585,535
Machinery	48,600,613	Leather manufactures	4,557,989
Spirits and wines	45,471,514	Woollen yarns	4,356,235
Automobiles	34,422,492	Castings and forgings (iron)	4,295,176
Crude petroleum (ex. ships' stores)	34,125,572	Sisal and manila grass	4,255,080
Raw sugar	33,266,888	Grey and white cottons	4,181,653
Automobile parts	33,237,181	Scientific and educational equipment	4,147,272
Farm implements	29,636,449	Fertilizers	4,145,158
Green fruits	24,859,503	Hardware and cutlery	4,097,572
Raw cotton	24,639,795	Containers (outside coverings)	4,088,123
Plates and sheets (iron)	22,400,549	Silk clothing	3,999,031
Raw rubber	21,337,146	Dyeing and tanning materials	3,940,933
Silk fabrics and velvets	19,862,231	Tweeds	3,772,336
Electric apparatus	19,044,465	Goods returned within five years	3,772,002
Engines and boilers	17,006,829	Tubes and pipe (iron)	3,738,548
Raw furs	16,495,299	Post office parcels	3,409,999
Books and printed matter	14,832,041	Ships' stores	3,357,421
Raw hides	14,140,594	Wire of iron or steel	3,317,776
Worsteds and serges	13,437,564	Clocks and watches	3,303,798
Corn	13,057,832	Hats and caps	3,215,022
Tea	12,310,414	Soda and soda compounds	3,181,366
Paper	11,918,454	Fish	3,096,527
Vegetable oils	11,699,524	Diamonds, unset	3,067,838
Gasolene	11,549,807	Medicinal preparations	3,036,439
Wood manufactures	10,712,954	Canned fruits	3,007,951
Planks and boards	10,504,419	Tin in blocks	2,986,784
Coloured or printed cottons	10,250,762	Sulphur	2,907,539
Clay and its products	9,662,412	Iron ore	2,889,768
Settlers' effects	9,192,370	Cotton yarns	2,880,383
Structural iron and steel	8,656,310	Carpets (wool)	2,806,392
Glass and glassware	8,129,616	Molasses	2,741,856
Jute cloth or canvas	7,862,818	Animals, living	2,506,610
Copper and its products	7,249,634	Musical instruments	2,377,576
Bars and rails (iron)	7,198,309	Rice	2,357,982
Raw tobacco	7,018,880	Binder twine	2,294,516
Stone and its products	6,395,610	Seeds	2,280,535
Woollen clothing	6,357,005	Cotton clothing	2,274,386
Dried fruits	6,311,756	Cotton lace and embroidery	2,253,596
Alumina	6,281,232	Toys and dolls	2,118,497
Fresh vegetables	6,069,278	Pigs and ingots (iron)	2,051,739
Leather, unmanufactured	5,960,105	Jewellery	1,857,592
Green coffee	5,667,068	Silk yarn, artificial	1,784,126
Rubber manufactures	5,326,273	Dress goods (wool) to be dyed	1,566,806
Brass and its products	5,153,663	Refined sugar	1,453,974
Noils, tops and waste wool	5,130,892	Canned vegetables	1,441,089
Raw wool	5,128,433	Rods of iron and steel	1,197,762
Raw silk	5,073,511	Soap	1,178,108
Paints and varnishes	5,015,186	Hemp	1,106,248
Coke	4,810,446		
Cocoa and chocolate	4,788,894	Total value of above commodities	918,063,287
Nuts (except cocoanuts)	4,676,467	Total value of imports	1,108,956,466
Band or hoop iron	4,614,506	Percentage represented by above commodities	82·8

Canada's Principal Exports.—The table giving "Seventy Leading Canadian Commodities Exported from Canada, 1928" shows that the value of these commodities amounted to $1,160,723,000 or 94·4 p.c. of our total domestic exports. Of the 54 commodities for which there were quantity statistics, 33 were exported at a lower average export price per unit in 1928 than in 1927, and 21 at a higher average export price. The total value, however, of the 33 commodities for which the average export price was lower in 1928 than in 1927 amounted to $822,000,000, while the total value of the 21 commodities for which the average export price was higher

amounted to $222,000,000. This analysis indicates that the physical volume of Canada's exports in 1928 was greater than in 1927, and possibly the greatest on record, and further it indicates that the decrease in Canada's domestic exports in 1928 compared with 1927, amounting to $23,950,000, was entirely due to lower average export prices.

The statistics in the following table clearly demonstrate that if the average export price for certain staple products had been the same in 1928 as in 1927, the Dominion's exports in 1928 would have been $20,354,000 greater (instead of $23,950,000 less) than in 1927:—

Commodities.	Declared Values Fiscal Year 1928.	Based on 1927 Average Values.	Increase.
	$	$	$
Wheat	352,117,000	379,268,000	27,151,000
Wheat flour	59,879,000	63,570,000	3,691,000
Rubber tires	20,274,000	23,834,000	3,560,000
Planks and boards	55,398,000	57,485,000	2,087,000
Potatoes	7,339,000	9,046,000	1,707,000
Copper ore	7,083,000	8,781,000	1,698,000
Cattle	13,877,000	15,140,000	1,263,000
Aluminium in bars, etc	10,822,000	11,961,000	1,139,000
Newsprint paper	128,507,000	129,524,000	1,017,000
Bacon and hams	11,941,000	12,932,000	991,000
Total above commodities	667,237,000	711,541,000	44,304,000

SEVENTY LEADING COMMODITIES EXPORTED FROM CANADA, BY VALUES, 1928.

Commodities.	Value.	Commodities.	Value.
	$		$
Wheat	352,117,150	Logs (wood)	4,984,496
Printing paper	129,225,824	Coal	4,745,856
Wheat flour	59,879,302	Flaxseed	4,296,570
Planks and boards	55,397,621	Oats	4,275,353
Wood pulp	47,261,235	Apples, green	4,243,786
Fish	33,519,300	Milk, condensed	3,989,580
Automobiles	24,840,675	Soda and soda compounds	3,666,242
Meats	24,472,478	Films	3,542,406
Raw furs	24,023,233	Poles (wood)	3,330,014
Barley	23,472,798	Acids	3,329,944
Whiskey	21,484,730	Square timber	3,206,835
Cheese	21,100,625	Raw wool	3,149,967
Rubber tires	20,274,337	Hardware and cutlery	2,884,503
Nickel	17,026,304	Abrasives, artificial, crude	2,820,811
Farm implements	15,643,381	Bran and shorts	2,750,196
Pulp wood	15,182,842	Ferro-manganese and ferro-silicon	2,738,315
Copper, ore and blister	14,511,711	Clover seed	2,702,014
Cattle	13,877,405	Paper board	2,657,186
Lead	11,880,662	Automobile parts	2,566,960
Silver ore and bullion	11,861,537	Raw tobacco	2,215,916
Raw hides	11,714,357	Cereal foods	2,059,161
Leather, unmanufactured	11,186,175	Binder twine	2,053,015
Aluminium in bars	10,822,174	Rolling mill products	1,893,707
Asbestos, raw	10,677,171	Electric apparatus	1,848,968
Rye	10,648,740	Oatmeal	1,799,408
Raw gold	9,035,734	Tubes and pipes (iron)	1,754,597
Zinc	8,118,699	Hay	1,684,100
Milk and cream, fresh	7,841,482	Wrapping paper	1,642,972
Potatoes	7,338,906	Musical instruments	1,272,143
Shingles (wood)	6,820,246	Butter	1,053,553
Laths (wood)	6,499,328	Fish oils	993,225
Rubber boots and shoes	6,348,022	Crude petroleum	813,413
Sugar, refined	6,260,983	Aluminium manufactures	612,836
Machinery	6,166,574		
Settlers' effects	5,797,805	Total value of above commodities	1,160,723,316
Fertilizers	5,414,293	Total value of exports (Canadian)	1,228,207,606
Malt liquors	5,401,429	Percentage represented by above commodities	94·4

Imports and Exports of Electrical Energy.—One important Canadian export—electrical energy—has up to the present not been included in our export statistics, because of the difficulty of determining its value at the point of export. This difficulty has now been surmounted and the following table shows the amounts of imports and exports since 1922 with values for 1927 and 1928. Imports and exports are entirely from and to the United States.

IMPORTS AND EXPORTS OF ELECTRICAL ENERGY.

Fiscal years.	Imports.		Exports.	
	Quantity.	Value.	Quantity.	Value.
	Kilowatt hours (000 omitted.)	$	Kilowatt hours (000 omitted.)	$
1922	–	–	861,575	–
1923	2,384	–	1,055,974	–
1924	2,378	–	1,396,522	–
1925	2,591	–	1,239,071	–
1926	3,009	–	1,336,844	–
1927	5,236	88,012	1,570,404	4,590,818
1928	5,008	86,253	1,629,083	4,778,783

Subsection 7.—Trade in Raw and Manufactured Products.

Relation Between Trade in Raw and Manufactured Products.—The industrial development of a country is indicated by the character of the goods it imports and exports. In the early years of Canada's development the imports were made up chiefly of manufactured products and the exports of raw and semi-manufactured products. Since the opening of the twentieth century this is almost reversed, a large percentage of the imports consisting of raw and semi-manufactured products for use in Canadian manufacturing industries, and the exports consisting to a considerable degree of products which have undergone some process of manufacture. Thus, the imports of partly and fully manufactured goods increased from $129,693,000 to $825,147,919 between 1900 and 1928, while exports of such goods increased during the same period from $98,906,000 to $648,177,990. Since the opening of the present century Canada has passed through much the same stages of development in her economic life as did the United States during the last quarter of the nineteenth century. While Canada has not gone so far as the United States in increasing exports of manufactured goods but curtailing imports, while curtailing exports of raw materials but increasing imports, she has made considerable progress in this regard since 1914 (the last pre-war fiscal year), though the tendency since 1924 has been slightly in the opposite direction, as the following table shows. This tendency in percentages is accounted for by the fact that while imports of raw materials have increased since 1924, they have not increased so much as imports of manufactured goods. Similarly, while exports of manufactured goods have also increased they have not increased so rapidly as exports of raw materials.

STATEMENT SHOWING PROPORTION OF RAW MATERIALS AND PARTLY AND FULLY MANUFACTURED GOODS IMPORTED INTO AND EXPORTED FROM CANADA AND THE UNITED STATES, 1914 AND 1920-1928.

Fiscal years.	Raw materials.				Partly manufactured goods.				Fully manufactured goods.			
	Imports.		Exports.		Imports.		Exports.		Imports.		Exports.	
	Can.	U.S.	Can.	U.S.	Can.	U.S.	Can.	U.S.	Can.	U.S.	Can.	U.S.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1914	21·8	46·5	63·2	39·9	9·3	16·9	10·1	16·1	68·9	36·6	26·7	44·0
1920	27·5	52·8	35·7	32·6	13·2	15·3	15·1	12·5	59·3	31·9	49·2	54·9
1921	24·9	41·1	44·2	35·5	11·7	14·8	16·6	10·3	63·4	44·1	39·2	54·2
1922	28·9	46·4	44·5	39·1	9·6	15·6	14·5	11·1	61·5	38·0	41·0	49·8
1923	28·4	48·3	44·7	36·3	9·7	18·8	16·2	12·5	61·9	32·9	39·1	51·2
1924	28·4	44·6	43·4	35·7	11·2	18·5	16·8	14·1	60·4	36·9	39·8	50·2
1925	27·7	49·8	44·7	39·4	10·8	18·4	15·1	13·5	61·5	31·8	40·2	47·1
1926	27·6	54·5	47·1	33·4	10·0	17·8	14·4	13·6	62·4	27·7	38·5	53·0
1927	25·6	51·1	46·2	35·0	10·1	17·8	14·6	14·1	64·3	31·1	39·2	50·9
1928	25·6	–	47·2	–	9·5	–	15·4	–	64·9	–	37·4	–

With reference to the relation between the trade in raw and manufactured products with the British Empire and foreign countries, analysis shows that the bulk of the imports into Canada from the United Kingdom and the United States consists of manufactured products, while the exports are made up very largely of raw and semi-manufactured products. During the fiscal years 1927 and 1928 the relation between the trade in raw and manufactured products with the United Kingdom and the United States was:—

Classes.	Imports from				Exports to			
	United Kingdom.		United States.		United Kingdom.		United States.	
	1927.	1928.	1927.	1928.	1927.	1928.	1927.	1928.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Raw materials	4·8	7·3	32·2	30·8	68·9	71·5	31·0	32·1
Partly manufactured	4·8	4·6	7·0	7·2	4·9	5·5	26·9	25·8
Fully manufactured	90·4	88·1	60·8	62·0	26·2	23·0	42·1	42·1

See also Table **15** of this chapter on this subject.

With regard to the relation between the trade in raw and manufactured products with countries other than the United Kingdom and the United States, it will be found on analysis that Canada's imports from countries with highly developed manufacturing industries consist of manufactured products, and her exports to those countries are made up very largely of raw and semi-manufactured products, but on the other hand Canada's trade with countries whose industries are not highly developed consists, in the case of imports, chiefly of raw and semi-manufactured products, and in the case of exports, very largely of manufactured products. No statistics have been compiled showing the relation between trade in raw and semi-manufactured products with foreign countries except the United States, but a partial compilation has been made for the British Empire for the year 1926. This analysis clearly demonstrates that the imports into Canada from the British Empire, except the United Kingdom, consist chiefly of raw and semi-manufactured products,

while the exports are made up mainly of manufactured products. The statistics in the following table demonstrate this:—

Empire Countries.	Principal imports of raw and semi-manufactured products, 1926.		Principal exports of manufactured products, 1926.	
	Amount.	Per cent of total.	Amount.	Per cent of total.
	$	p.c.	$	p.c.
Australia	1,954,310	64·2	13,335,799	86·5
British Guiana	4,415,622	98·1	1,749,337	77·5
British India	4,018,062	42·3	5,809,803	78·3
British East and West Africa	509,005	99·9	1,500,240	94·8
British South Africa	112,211	86·6	7,839,591	86·4
British West Indies	7,228,174	72·5	11,456,695	86·2
Ceylon and Straits Settlements	6,902,310	93·0	4,120,323	98·4
Hong Kong	721,648	46·7	1,670,917	88·6
Irish Free State	–	–	1,880,839	39·9
Newfoundland	555,319	34·4	5,812,053	51·5
New Zealand	1,729,739	63·4	13,729,577	82·9
Other British Empire	2,915,229	96·1	1,685,688	63·0
Total British Empire except United Kingdom	31,061,629	70·6	70,590,862	78·1

Subsection 8.—Canada's Position in International Trade in the Calendar Years 1913 and 1927.

Canada continues to improve her position among the leading trading nations of the world. The following table shows that Canada in 1913 occupied eighth place in imports among the chief trading countries of the world, after the United Kingdom, Germany, the United States, France, the Netherlands, Belgium and Italy, but in 1927 she had advanced to fifth place, displacing the Netherlands, Belgium and Italy. In export trade, Canada in 1913 was in tenth position, after the United Kingdom, the United States, Germany, France, the Netherlands, British India, Belgium, Italy and Argentina, but in 1927 she had moved up to fifth position, displacing the Netherlands, British India, Belgium, Italy and Argentina. With regard to aggregate trade, Canada occupied ninth position in 1913, but in 1927 (as in 1926) she occupied fifth position, after the United States, the United Kingdom, Germany and France.

With reference to trade per capita, Canada has made a very creditable advance since 1913. In that year Canada occupied fifth place in imports per capita and in 1927 she occupied seventh place. In exports per capita Canada in 1913 occupied seventh place and in 1927 she had advanced to second place, surpassed only by New Zealand. In aggregate trade Canada in 1913 occupied sixth place in trade per capita and in 1927 she had moved up to second place, New Zealand being in first place as in 1926. In 1927 the aggregate trade per capita of New Zealand amounted to $309.87, imports totalling $149.57 and exports $160.30, while that for Canada amounted to $240.05, imports amounting to $112.06 and exports to $127.99.

In 1913 Canada occupied seventeenth position among the principal commercial nations of the world with reference to visible trade balance, it being unfavourable in that year to the extent of $222,900,000 or $29.61 per capita, but in 1927 she was in third position, with a favourable trade balance of $151,700,000. In 1927, as in 1913, the United States occupied first place and British India second place in amount of favourable trade balances. Although Canada's favourable trade balance in 1927 was $123,900,000 less than in 1926, she led the world in favourable trade balance per

capita with Argentina a close second and New Zealand a good third. The standing is—Canada $15.93, Argentina $14.22 and New Zealand $10.73. In 1927, among the chief commercial nations of the world nine had a favourable trade balance, six in 1926, eight in 1925 and 1924, six in 1923 and only three in 1913. Canada's favourable trade balance per capita has exceeded that of any other country for the past five years.

COMPARISON OF THE TRADE OF THE PRINCIPAL COUNTRIES OF THE WORLD.

(Calendar Years 1913 and 1927.)

NOTES.—(1) Countries arranged in order of importance of trade in 1927.
(2) The figures in parentheses opposite each country indicate the order of importance of trade in 1913.

Rank.	Countries.	Foreign Trade.		Increase (+) or Decrease (−) 1927 compared with 1913.		Trade per Capita.	
		1913.	1927.	Amount.	Per cent.	1913.	1927.
	Net Imports for Consumption.	Million $	Million $	Million $	p.c.	$	$
1	United Kingdom (1)	3,207·9	5,335·4	(+) 2,127·5	(+) 66·3	69·68	117·97
2	United States (3)	1,756·9	4,077·9	(+) 2,321·0	(+) 132·1	18·10	34·37
3	Germany (2)	2,563·3	3,366·1	(+) 802·8	(+) 31·3	38·62	53·24
4	France (4)	1,625·3	2,071·8	(+) 446·5	(+) 27·5	41·04	50·84
5	Canada (8)	659·1	1,066·7	(+) 407·6	(+) 61·9	87·55	112·06
6	Italy (7)	703·6	1,049·0	(+) 345·4	(+) 49·0	20·28	25·95
7	Netherlands (5)	1,575·0	1,022·4	(−) 552·6	(−) 35·1	256·35	134·06
8	Japan (13)	363·3	995·4	(+) 632·1	(+) 174·0	6·94	16·04
9	British India (9)	594·1	896·9	(+) 302·8	(+) 50·9	1·88	2·81
10	Argentina (10)	406·6	826·8	(+) 420·2	(+) 103·3	46·74	79·90
11	Belgium (6)	894·9	807·6	(−) 87·3	(−) 9·8	118·07	102·55
12	Australia (11)	370·6	771·6	(+) 401·0	(+) 108·2	78·30	125·11
13	Switzerland (12)	370·5	493·8	(+) 123·3	(+) 33·3	97·99	124·73
14	Sweden (16)	226·9	422·1	(+) 195·2	(+) 86·0	40·44	69·61
15	Denmark (17)	208·3	415·4	(+) 207·1	(+) 99·4	75·08	120·35
16	Brazil (14)	326·0	388·8	(+) 62·8	(+) 19·3	13·41	10·55
17	Union of South Africa (18)	196·5	343·1	(+) 146·6	(+) 74·6	28·72	45·52
18	Spain (1926) (15)	252·1	319·6	(+) 67·5	(+) 26·8	12·64	14·55
19	Norway (19)	148·0	254·5	(+) 106·5	(+) 71·9	60·11	91·24
20	New Zealand (20)	104·1	213·4	(+) 109·3	(+) 105·0	98·89	149·57
	Exports (Domestic).						
1	United States (2)	2,448·3	4,758·3	(+) 2,310·0	(+) 94·4	25·23	40·11
2	United Kingdom (1)	2,556·2	3,451·0	(+) 894·8	(+) 34·2	55·52	76·30
3	Germany (3)	2,402·9	2,432·1	(+) 29·2	(+) 1·2	36·22	38·47
4	France (4)	1,327·9	2,164·7	(+) 836·8	(+) 63·0	33·53	53·12
5	Canada (10)	436·2	1,218·3	(+) 782·1	(+) 179·3	57·95	127·99
6	British India (6)	781·9	1,162·4	(+) 380·5	(+) 48·6	2·48	3·64
7	Argentina (9)	465·6	974·0	(+) 508·4	(+) 109·2	53·61	94·12
8	Japan (13)	313·5	907·9	(+) 594·4	(+) 189·6	5·99	14·63
9	Italy (8)	484·7	804·2	(+) 319·5	(+) 65·9	13·97	19·90
10	Netherlands (5)	1,239·4	762·0	(−) 477·4	(−) 38·5	201·71	99·82
11	Belgium (7)	701·5	739·2	(+) 37·7	(+) 5·4	92·55	93·87
12	Australia (11)	354·0	671·0	(+) 317·0	(+) 89·6	74·78	108·81
13	Brazil (12)	314·7	432·0	(+) 118·2	(+) 37·5	12·94	11·74
14	Sweden (15)	219·0	431·9	(+) 212·9	(+) 97·2	39·05	71·22
15	Switzerland (14)	265·6	389·7	(+) 124·1	(+) 46·7	70·25	98·43
16	Denmark (17)	170·8	386·1	(+) 215·3	(+) 126·0	61·55	111·86
17	Union of South Africa (18)	133·9	361·5	(+) 227·6	(+) 170·0	19·58	47·95
18	Spain (1926) (16)	204·1	240·3	(+) 36·2	(+) 17·7	10·23	10·94
19	New Zealand (19)	102·1	228·8	(+) 126·7	(+) 124·1	97·01	160·30
20	Norway (20)	102·1	175·9	(+) 73·8	(+) 72·2	41·46	63·05
	Aggregate Trade.						
1	United States (3)	4,205·2	8,836·2	(+) 4,631·0	(+) 110·1	43·33	74·48
2	United Kingdom (1)	5,764·1	8,786·4	(+) 3,022·3	(+) 52·4	125·20	194·27
3	Germany (2)	4,966·2	5,798·2	(+) 832·0	(+) 16·7	74·84	91·71
4	France (4)	2,953·2	4,236·5	(+) 1·283,3	(+) 43·5	74·57	103·96
5	Canada (9)	1,095·3	2,285·0	(+) 1,189·7	(+) 108·6	145·50	240·05
6	British India (7)	1,376·0	2,059·3	(+) 683·3	(+) 49·6	4·36	6·45
7	Japan (12)	676·8	1,903·3	(+) 1,226·5	(+) 181·2	12·93	30·67
8	Italy (8)	1,188·3	1,853·2	(+) 664·9	(+) 55·9	34·25	45·85
9	Argentina (10)	872·2	1,800·8	(+) 928·6	(+) 106·4	100·35	174·02
10	Netherlands (5)	2,814·4	1,784·4	(−) 1,030·0	(−) 36·6	458·06	233·98
11	Belgium (6)	1,596·4	1,546·8	(−) 49·6	(−) 3·1	210·62	196·42
12	Australia (11)	724·6	1,442·6	(+) 718·0	(+) 99·1	153·08	233·92

COMPARISON OF THE TRADE OF THE PRINCIPAL COUNTRIES OF THE WORLD—concluded.

(Calendar Years 1913 and 1927.)

NOTES.—(1) Countries arranged in order of importance of trade in 1927.
(2) The figures in parentheses opposite each country indicate the order of importance of trade in 1913.

Rank.	Countries.	Foreign Trade.		Increase (+) or Decrease (−) 1927 compared with 1913.		Trade per Capita.	
		1913.	1927.	Amount.	Per cent.	1913.	1927.
	Aggregate Trade—concluded.	Million $	Million $	Million $	p.c.	$	$
13	Switzerland (14)	636·1	883·5	(+) 247·4	(+) 38·9	168·24	223·16
14	Sweden (16)	445·9	854·0	(+) 408·1	(+) 91·5	79·49	140·83
15	Brazil (13)	640·7	821·7	(+) 181·0	(+) 28·2	26·35	22·29
16	Denmark (17)	379·1	801·5	(+) 422·4	(+) 111·2	136·63	232·21
17	Union of South Africa (18)	330·4	704·6	(+) 374·2	(+) 113·2	48·30	93·47
18	Spain (1926) (15)	456·2	559·9	(+) 103·7	(+) 22·7	22·87	25·49
19	New Zealand (20)	206·2	442·2	(+) 236·0	(+) 114·4	195·80	309·87
20	Norway (19)	250·1	430·4	(+) 180·3	(+) 72·1	101·57	154·29

VISIBLE BALANCES OF TRADE OF PRINCIPAL COUNTRIES OF THE WORLD, CALENDAR YEARS 1913 AND 1927.

(Countries arranged in order of Trade Balances.)

NOTE.—Credit balance marked (+). Debit balance marked (−).

Calendar Year, 1913.				Calendar Year, 1927.			
Rank.	Countries.	Amount.	Per capita	Rank.	Countries.	Amount.	Per capita
		Million $	$			Million $	$
1	United States	(+) 691·4	(+) 7·13	1	United States	(+) 680·4	(+) 5·74
2	British India	(+) 187·8	(+) 0·60	2	British India	(+) 265·5	(+) 0·83
3	Argentina	(+) 59·0	(+) 6·78	3	Canada	(+) 151·7	(+) 15·93
4	New Zealand	(−) 2·0	(−) 1·90	4	Argentina	(+) 147·2	(+) 14·22
5	Sweden	(−) 7·9	(−) 1·41	5	France	(+) 92·9	(+) 2·28
6	Brazil	(−) 11·3	(−) 0·46	6	Brazil	(+) 44·1	(+) 1·19
7	Australia	(−) 16·6	(−) 3·51	7	Union of South Africa	(+) 18·3	(+) 2·43
8	Denmark	(−) 37·5	(−) 13·51	8	New Zealand	(+) 15·3	(+) 10·73
9	Norway	(−) 45·9	(−) 18·60	9	Sweden	(+) 9·8	(+) 1·61
10	Spain	(−) 48·0	(−) 2·41	10	Denmark	(−) 29·3	(−) 8·49
11	Japan	(−) 49·8	(−) 0·95	11	Belgium	(−) 68·4	(−) 8·68
12	Union of South Africa	(−) 62·6	(−) 9·00	12	Norway	(−) 78·6	(−) 28·19
13	Switzerland	(−) 105·1	(−) 27·80	13	Spain	(−) 79·3	(−) 3·61
14	Germany	(−) 160·4	(−) 2·42	14	Japan	(−) 87·5	(−) 1·41
15	Belgium	(−) 193·4	(−) 25·50	15	Australia	(−) 100·6	(−) 16·30
16	Italy	(−) 218·9	(−) 6·31	16	Switzerland	(−) 104·1	(−) 26·30
17	Canada	(−) 222·9	(−) 29·61	17	Italy	(−) 244·8	(−) 6·05
18	France	(−) 297·4	(−) 7·51	18	Netherlands	(−) 260·4	(−) 34·14
18	Netherlands	(−) 335·6	(−) 54·62	19	Germany	(−) 934·0	(−) 14·77
20	United Kingdom	(−) 651·7	(−) 14·61	20	United Kingdom	(−) 1,884·5	(−) 41·67

Canada's Share in World Import Trade.—Canada has made remarkable progress since 1913 in the expansion of her export trade in the world's markets. The following table of imports of principal countries shows that in 1913 the value of the total imports into the 26 leading countries listed amounted to $16,900,600,000, whereas in 1926 the value of imports for the same countries amounted to $25,037,600,000, the increase during the thirteen years amounting to $8,137,000,000. During the same period, however, imports into the identical countries from Canada increased from $346,300,000 to $1,100,600,000 or by $754,-300,000. From 1913 to 1926 total imports into these countries increased only about 48 p.c., whereas imports from Canada increased about 218 p.c. In 1913 Canada's share of the total imports into the 26 countries was practically 2 p.c., while for the year 1926 it was about 4½ p.c. From 1913 to 1926 Canada's share of the total imports into the principal world markets increased as follows:—British West India Colonies from 9·2 to 19·2 p.c.; United States from 8·1 to 11·0 p.c.;

New Zealand from 2·1 to 7·1 p.c.; United Kingdom from 4·4 to 5·7 p.c.; Switzerland from 1·0 to 4·5 p.c.; Japan from 0·3 to 2·8 p.c.; Germany from 0·6 to 2·7 p.c.; and Australia from 1·3 to 2·8 p.c.

CANADA'S SHARE IN IMPORTS OF PRINCIPAL COUNTRIES.

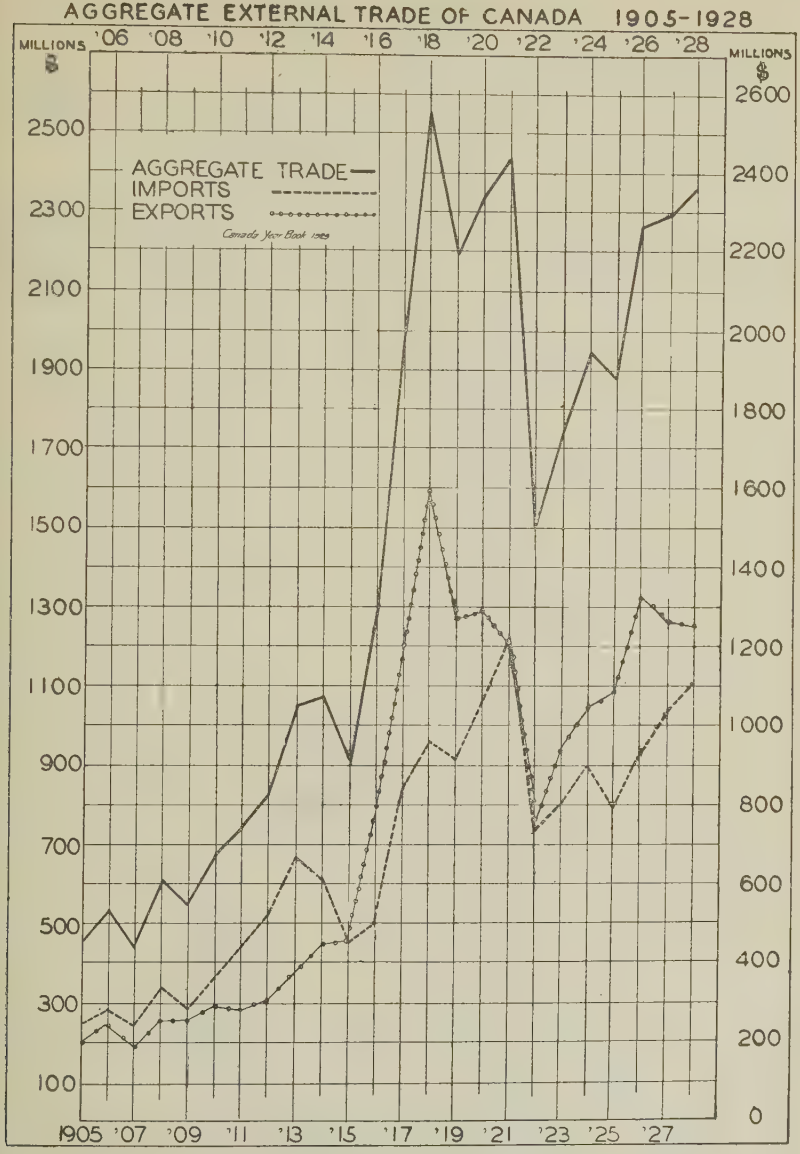
(Years ended Dec. 31, 1913, 1925 and 1926.)

NOTE.—Values in Millions of Dollars.

Countries.	Total Imports.			Imports from Canada.			Canada's Share of Imports.		
	1913.	1925.	1926.	1913.	1925.	1926.	1913.	1925.	1926.
	$	$	$	$	$	$	p.c.	p.c.	p.c.
Belgium	894·9	846·4	774·2	5·7	19·5	18·2	0·6	2·3	2·4
Denmark	208·3	407·5	395·8	0·3	6·2	3·4	0·1½	1·5	0·9
France	1,625·3	2,097·7	1,928·8	3·6	16·2	12·9	0·2	0·8	0·7
Germany	2,563·3	2,957·9	2,368·3	15·3	38·5	62·9	0·6	1·3	2·7
Italy	703·6	1,042·3	1,015·2	2·8	17·1	24·4	0·4	1·6	2·4
Netherlands	1,575·0	986·5	978·7	3·8	14·4	12·3	0·2½	1·5	1·3
Norway	148·0	248·0	241·3	0·2	7·4	5·3	0·1¼	3·0	2·2¼
Spain	252·1	322·1	319·6	1·7	2·6	0·6	0·7	0·8	0·2
Sweden	226·9	385·8	399·5	0·1	4·4	2·4	0·0¼	1·1	0·6
Switzerland	370·5	509·4	466·0	3·8	17·9	21·1	1·0¼	3·5	4·5
United Kingdom	3,207·9	5,641·1	5,437·5	143·2	343·5	311·7	4·4	6·1	5·7
British West India Colonies	55·2	100·4	99·6	5·1	18·2	19·1	9·2	18·1	19·2
Cuba	140·1	295·0	260·8	1·8	6·6	7·1	1·3	2·3	2·7
Mexico	95·9	195·5	190·6	0·2	1·6	3·1	0·2	0·8	1·6
United States	1,756·9	4,136·8	4,333·9	142·1	454·2	475·9	8·1	11·0	11·0
Argentina	406·6	846·2	793·7	1·6	4·3	8·9	0·4	0·5	1·1
Brazil	326·0	420·3	387·6	1·3	5·4	7·1	0·4	1·3	1·9
Chile	120·3	148·8	157·3	–	0·1	0·2	–	0·0¾	0·1¼
Peru	29·6	88·8	95·1	–	0·4	1·0	–	0·5	1·0
British India	594·1	814·4	864·6	0·1	3·9	5·9	0·0½	0·5	0·7
China	428·0	796·2	854·4	1·4	6·1	18·3	0·3	0·8	2·1
Japan	363·3	1,037·7	1,085·7	0·9	15·3	30·1	0·3	1·5	2·8½
Australia	370·6	702·3	753·4	4·7	18·3	21·0	1·3	2·6	2·8
New Zealand	104·1	249·6	237·9	2·2	19·1	16·7	2·1	7·7	7·1
Egypt	137·6	287·6	258·8	0·1	0·2	0·1	0·1	0·0¾	0·0½
Union of South Africa	196·5	305·8	339·3	4·3	11·3	10·9	2·2	3·7	3·2
Total above twenty-six countries	16,900·6	25,870·1	25,037·6	346·3	1,052·7	1,100·6	2·0½	4·1	4·4

Subsection 9.—Main Historical Tables and Tables showing Current Trends in External Trade.

In this subsection are assembled in summary form the main tables of Canadian trade since Confederation, while the figures of trade in the latest years are given in greater detail by countries and commodities. Tables **1** to **9** inclusive are of a historical character, while Tables **10** and **11** give in summary and Tables **12** and **13** in detailed form our exports and imports for the four latest fiscal years. In Table **14** imports are divided into dutiable and free and exports into Canadian and foreign produce. Table **15** analyses our trade in the latest year by main groups of origin and degrees of manufacture. Table **16** classifies that trade according to purpose. Table **17** gives trade by provinces and customs ports, and Table **18** by tariffs. Tables **19** and **20** deal with our imports and exports by countries in the last five years, while Table **21** shows the value of our imports and exports transported *via* the United States. Tables **22** to **33** show by commodities our principal imports from and exports to the more important trading countries other than the United Kingdom and the United States; our trade with these latter is exhaustively dealt with in Tables **12** and **13.**



NOTE—The figures at the side of the chart are in millions of dollars. Each vertical line represents one year from 1905 to 1928, and each horizontal line represents 100 million dollars from zero to 2,600 millions. See page 494 for figures.

1.—Aggregate External Trade of Canada, 1868-1928.

Fiscal Years.	Imports of Merchandise Entered for Home Consumption.			Exports of Merchandise.[1]			Total of Imports for Home Consumption and Exports (Merchandise).
	Dutiable.	Free.	Total.	Canadian Produce.[1]	Foreign Produce.	Total.	
	$	$	$	$	$	$	$
1868.....	43,655,696	23,434,463	67,090,159	48,504,899	4,196,821	52,701,720	119,791,879
1869.....	41,069,342	22,085,599	63,154,941	52,400,772	3,855,801	56,256,573	119,411,514
1870.....	45,127,422	21,774,652	66,902,074	59,043,590	6,527,622	65,571,212	132,473,286
1871.....	60,094,362	24,120,026	84,214,388	57,630,024	9,853,244	67,483,268	151,697,656
1872.....	68,276,157	36,679,210	104,955,367	65,831,083	12,798,182	78,629,265	183,584,632
1873.....	71,198,176	53,310,953	124,509,129	76,538,025	9,405,910	85,943,935	210,453,064
1874.....	76,232,530	46,948,357	123,180,887	76,741,997	10,614,096	87,356,093	210,536,980
1875.....	78,138,511	39,270,057	117,408,568	69,709,823	7,137,319	76,847,142	194,255,710
1876.....	60,238,297	32,274,810	92,513,107	72,491,437	7,234,961	79,726,398	172,239,505
1877.....	60,916,770	33,209,624	94,126,394	68,030,546	7,111,108	75,141,654	169,268,048
1878.....	59,773,059	30,622,812	90,395,851	67,989,800	11,164,878	79,154,678	169,550,529
1879.....	55,426,836	23,275,683	78,702,519	62,431,025	8,355,644	70,786,669	149,489,888
1880.....	54,182,967	15,717,575	69,900,542	72,899,697	13,240,006	86,139,703	156,040,245
1881.....	71,620,725	18,867,604	90,488,329	83,944,701	13,375,117	97,319,818	187,808,147
1882.....	85,757,433	25,387,751	111,145,184	94,137,657	7,628,453	101,766,110	212,911,294
1883.....	91,588,339	30,273,157	121,861,496	87,702,431	9,751,773	97,454,204	219,315,700
1884.....	80,010,498	25,962,480	105,972,978	79,833,098	9,389,106	89,222,204	195,195,182
1885.....	73,269,618	26,486,157	99,755,775	79,131,735	8,079,646	87,211,381	186,967,156
1886.....	70,658,819	25,333,318	95,992,137	77,756,704	7,438,079	85,194,783	181,186,920
1887.....	78,120,679	26,986,531	105,107,210	80,960,909	8,549,333	89,510,242	194,617,452
1888.....	69,645,824	31,025,804	100,671,628	81,382,072	8,803,394	90,185,466	190,857,094
1889.....	74,475,139	34,623,057	109,098,196	80,272,456	6,938,455	87,210,911	196,309,107
1890.....	77,106,286	34,576,287	111,682,573	85,257,586	9,051,781	94,300,567	205,991,940
1891.....	74,536,036	36,997,918	111,533,954	88,671,738	8,798,631	97,470,369	209,004,323
1892.....	69,160,737	45,999,676	115,160,413	99,032,466	13,121,791	112,154,257	227,314,670
1893.....	69,873,571	45,297,259	115,170,830	105,488,798	8,941,856	114,430,654	229,601,484
1894.....	62,779,182	46,291,729	109,070,911	103,851,764	11,833,805	115,685,569	224,756,480
1895.....	58,557,655	42,118,236	100,675,891	102,828,441	6,485,043	109,313,484	209,989,375
1896.....	67,239,759	38,121,402	105,361,161	109,707,805	6,606,738	116,314,543	221,675,704
1897.....	66,220,765	40,397,062	106,617,827	123,632,540	10,825,163	134,457,703	241,075,530
1898.....	74,625,088	51,682,074	126,307,162	144,548,662	14,980,883	159,529,545	285,836,707
1899.....	89,433,172	59,989,244	149,422,416	137,360,792	17,520,088	154,880,880	304,303,296
1900.....	104,346,795	68,304,881	172,651,676	168,972,301	14,265,254	183,237,555	355,889,231
1901.....	105,969,756	71,961,163	177,930,919	177,431,386	17,077,757	194,509,143	372,440,062
1902.....	118,657,496	78,080,308	196,737,804	196,019,763	13,951,101	209,970,864	406,708,668
1903.....	136,796,065	88,298,744	225,094,809	214,401,674	10,828,087	225,229,761	450,324,570
1904.....	148,909,576	94,999,839	243,909,415	198,414,439	12,641,239	211,055,678	454,965,093
1905.....	150,928,787	101,035,427	251,964,214	190,854,946	10,617,115	201,472,061	453,436,275
1906.....	173,046,109	110,694,171	283,740,280	235,483,956	11,173,846	246,657,802	530,398,082
1907[2].....	152,065,529	98,160,306	250,225,835	180,545,306	11,541,927	192,087,233	442,313,068
1908.....	218,160,047	134,380,832	352,540,879	246,960,968	16,407,984	263,368,952	615,909,831
1909.....	175,014,160	113,580,036	288,594,196	242,603,584	17,318,782	259,922,366	548,516,562
1910.....	227,264,346	143,053,853	370,318,199	279,247,551	19,516,442	298,763,993	669,082,192
1911.....	282,723,812	170,000,791	452,724,603	274,316,553	15,683,657	290,000,210	742,724,813
1912.....	335,304,060	187,100,615	522,404,675	290,223,857	17,492,294	307,716,151	830,120,826
1913.....	441,606,885	229,600,349	671,207,234	355,754,600	21,313,755	377,068,355	1,048,275,589
1914.....	410,258,744	208,935,254	619,193,998	431,588,439	23,848,785	455,437,224	1,074,631,222
1915.....	279,792,195	176,163,713	455,955,908	409,418,836	52,023,673	461,442,509	917,398,417
1916.....	289,366,527	218,834,607	508,201,134	741,610,638	37,689,432	779,300,070	1,287,501,204
1917.....	461,733,609	384,717,269	846,450,878	1,151,375,768	27,835,332	1,179,211,100	2,025,661,978
1918.....	542,341,522	421,191,056	963,532,578	1,540,027,788	46,142,004	1,586,169,792	2,549,702,370
1919.....	526,494,658	393,217,047	919,711,705	1,216,443,806	52,321,479	1,268,765,285	2,188,476,990
1920.....	693,655,165	370,872,958	1,064,528,123	1,239,492,098	47,166,611	1,286,658,709	2,351,186,832
1921.....	847,561,406	392,597,476	1,240,158,882	1,189,163,701	21,264,418	1,210,428,119	2,450,587,001
1922.....	495,626,323	252,178,009	747,804,332	740,240,680	13,686,329	753,927,009	1,501,731,341
1923.....	537,258,732	265,320,462	802,579,244	931,451,443	13,844,394	945,295,837	1,747,875,081
1924.....	591,299,094	302,067,773	893,366,867	1,045,351,056	13,412,241	1,058,763,297	1,952,130,164
1925.....	516,014,455	280,918,082	796,932,537	1,069,067,353	12,294,290	1,081,361,643	1,878,294,180
1926.....	583,051,670	344,277,062	927,328,732	1,315,355,791	13,344,346	1,328,700,137	2,256,028,869
1927.....	659,897,013	370,995,492	1,030,892,505	1,252,157,506	15,415,636	1,267,573,142	2,298,465,647
1928.....	710,050,228	398,906,238	1,108,956,466	1,228,207,606	22,248,691	1,250,456,297	2,359,412,763

[1] Including exports to the United States estimated "short" in the years 1868-1900. [2] Nine months.

2.—Ratio of Exports to Imports and Value per Capita of Exports, Imports and Total Trade, 1868-1928.

Fiscal years.	Excess of imports entered for consumption over total exports.	Excess of total exports over imports entered for consumption.	Percentage rate of total exports to imports entered for consumption.	Estimated population.	Value per capita of—		
					Exports Canadian produce.	Total imports.	Total trade.[2]
	$	$	p.c.	No.	$	$	$
1868	14,388,439	–	78·55	3,372,000	14·38	19·90	34·28
1869	6,898,368	–	89·07	3,413,000	15·35	18·50	33·85
1870	1,330,862	–	98·01	3,454,000	17·09	19·37	36·46
1871	16,731,120	–	80·13	3,518,000	16·38	23·94	40·32
1872	26,326,102	–	74·92	3,611,000	18·23	29·06	47·29
1873	38,565,194	–	69·03	3,668,000	20·87	33·94	54·81
1874	35,824,794	–	70·92	3,825,000	20·06	32·20	52·26
1875	40,561,426	–	65·45	3,887,000	17·93	30·21	48·14
1876	12,786,709	–	86·18	3,949,000	18·36	23·43	41·79
1877	18,984,740	–	79·83	4,013,000	16·97	23·45	40·42
1878	11,241,173	–	87·56	4,079,000	16·67	22·16	38·83
1879	7,915,850	–	89·94	4,146,000	15·06	18·98	34·04
1880	–	16,239,161	123·23	4,215,000	17·29	16·58	33·87
1881	–	6,831,489	107·05	4,337,000	19·36	20·86	40·22
1882	9,379,074	–	91·57	4,384,000	21·47	25·35	46·82
1883	24,407,292	–	79·97	4,433,000	19·78	27·49	47·27
1884	16,750,774	–	84·19	4,485,000	17·80	23·63	41·43
1885	12,544,394	–	87·42	4,539,000	17·43	21·98	39·41
1886	10,797,354	–	88·75	4,589,000	16·94	20·92	37·86
1887	15,596,968	–	85·16	4,638,000	17·46	22·66	40·12
1888	10,486,162	–	89·58	4,688,000	17·36	21·47	38·83
1889	21,187,285	–	79·93	4,740,000	16·94	23·02	39·96
1890	17,373,206	–	84·44	4,793,000	17·79	23·30	41·09
1891	14,063,585	–	87·39	4,844,000	18·31	23·02	41·33
1892	3,006,156	–	97·39	4,889,000	20·26	23·55	43·81
1893	740,176	–	99·36	4,936,000	21·37	23·33	44·70
1894	–	6,614,658	106·06	4,984,000	20·84	21·88	42·72
1895	–	8,637,593	108·58	5,034,000	20·43	20·00	40·43
1896	–	10,453,382	110·40	5,086,000	21·57	20·72	42·29
1897	–	27,839,876	126·11	5,142,000	24·04	20·73	44·77
1898	–	33,222,383	126·30	5,199,000	27·80	24·29	52·09
1899	–	5,458,464	103·65	5,259,000	26·12	28·41	54·53
1900	–	10,585,879	106·13	5,322,000	31·75	32·44	64·19
1901	–	16,578,224	109·32	5,403,000	32·84	33·13	65·97
1902	–	13,233,060	106·73	5,532,000	35·43	35·56	70·99
1903	–	134,952	100·06	5,673,000	37·79	39·68	77·47
1904	32,853,737	–	86·53	5,825,000	34·06	41·87	75·93
1905	50,492,153	–	79·96	5,992,000	31·85	42·05	73·90
1906	37,082,478	–	86·93	6,171,000	38·16	45·98	84·14
1907[1]	58,138,602	–	76·77	6,302,000	28·65	39·70	68·35
1908	89,171,927	–	74·71	6,491,000	38·05	54·31	92·36
1909	28,671,830	–	90·06	6,695,000	36·24	43·10	79·34
1910	71,554,200	–	80·68	6,917,000	40·37	53·54	93·91
1911	162,724,393	–	64·06	7,206,643	38·06	62·82	100·88
1912	214,688,524	–	58·90	7,365,205	39·40	70·93	110·33
1913	294,138,879	–	56·18	7,527,208	47·26	89·17	136·43
1914	163,756,774	–	73·56	7,692,832	56·10	80·49	136·59
1915	–	5,486,601	101·20	7,862,078	52·08	57·99	110·07
1916	–	271,098,936	153·34	8,035,584	92·29	63·24	155·53
1917	–	332,760,222	139·31	8,180,160	140·75	103·48	244·23
1918	–	622,637,214	164·62	8,328,382	184·91	115·69	300·60
1919	–	349,053,580	137·95	8,478,546	143·48	108·48	251·96
1920	–	222,130,586	120·87	8,631,475	143·61	123·34	266·95
1921	29,730,763	–	97·60	8,788,483	135·31	141·11	276·42
1922	–	6,122,677	100·82	8,908,550	83·09	83·94	167·03
1923	–	142,716,593	117·78	9,028,240	103·17	88·90	192·07
1924	–	165,396,430	118·51	9,150,940	114·23	97·63	211·86
1925	–	284,429,106	135·69	9,268,700	115·34	85,98	201·32
1926	–	401,371,405	143·28	9,389,693	140·08	98·76	238·84
1927	–	236,680,637	122·92	9,519,220	131·54	108·30	239·84
1928	–	141,499,831	112·76	9,658,000	127·17	114·82	241·99

[1] Nine months. [2] Not including exports of foreign produce.

3.—Movement of Coin and Bullion, 1868-1928.

NOTE.—Up to 1919 "silver bullion in bars, blocks, ingots, drops, sheets and plates, unmanufactured", was included in "coin and bullion", but since that time it has been regarded as "merchandise". The figures from 1899 have been revised in accordance with the new arrangement

Fiscal years.	Total imports.	Exports.			Total imports and exports of coin and bullion.
		Canadian.	Foreign.	Total.	
	$	$	$	$	$
1868	4,895,147	4,866,168	–	4,866,168	9,761,315
1869	4,247,229	4,218,208	–	4,218,208	8,465,437
1870	4,335,529	8,002,278	–	8,002,278	12,337,807
1871	2,733,094	6,690,350	–	6,690,350	9,423,444
1872	2,753,749	4,010,398	–	4,010,398	6,764,147
1873	3,005,465	3,845,987	–	3,845,987	6,851,452
1874	4,223,282	1,995,835	–	1,995,835	6,219,117
1875	2,210,089	1,039,837	–	1,039,837	3,249,926
1876	2,220,111	1,240,037	–	1,240,037	3,460,148
1877	2,174,089	–	733,739	733,739	2,907,828
1878	803,726	–	168,989	168,989	972,715
1879	1,639,089	–	704,586	704,586	2,343,675
1880	1,881,807	–	1,771,755	1,771,755	3,653,562
1881	1,123,275	–	971,005	971,005	2,094,280
1882	1,503,743	–	371,093	371,093	1,874,836
1883	1,275,523	–	631,600	631,600	1,907,123
1884	2,207,666	–	2,184,292	2,184,292	4,391,958
1885	2,954,244	–	2,026,980	2,026,980	4,981,224
1886	3,610,557	–	56,531	56,531	3,667,088
1887	532,218	–	5,569	5,569	537,787
1888	2,175,472	–	17,534	17,534	2,193,006
1889	575,251	–	1,978,256	1,978,256	2,553,507
1890	1,083,011	–	2,439,782	2,439,782	3,522,793
1891	1,811,170	129,328	817,599	946,927	2,758,097
1892	1,818,530	306,447	1,502,671	1,809,118	3,627,648
1893	6,534,200	309,459	3,824,239	4,133,698	10,667,898
1894	4,023,072	310,006	1,529,374	1,839,380	5,862,452
1895	4,576,620	256,571	4,068,748	4,235,319	8,901,939
1896	5,226,319	207,532	4,491,777	4,699,309	9,925,628
1897	4,676,194	327,298	3,165,252	3,492,550	8,168,744
1898	4,390,844	1,045,723	3,577,415	4,623,138	9,013,982
1899	4,629,177	1,101,245	2,914,780	4,016,025	8,645,202
1900	8,152,640	1,670,068	6,987,100	8,657,168	16,809,808
1901	3,307,069	–	1,978,489	1,978,489	5,285,558
1902	6,053,791	–	1,669,422	1,669,422	7,723,213
1903	8,695,707	–	619,963	619,963	9,315,670
1904	7,554,917	–	2,465,557	2,465,557	10,020,474
1905	9,961,340	–	1,844,811	1,844,811	11,806,151
1906	6,670,527	–	9,928,828	9,928,828	16,549,355
1907 (9 mos.)	7,029,047	–	13,189,964	13,189,964	20,219,011
1908	5,887,737	–	16,637,654	16,637,654	22,525,391
1909	9,611,761	2	1,589,791	1,589,793	11,201,554
1910	5,514,817	–	2,594,536	2,594,536	8,109,353
1911	9,226,715	–	7,196,155	7,196,155	16,422,870
1912	25,077,515	–	7,601,099	7,601,099	32,678,614
1913	4,309,811	–	16,163,702	16,163,702	20,473,513
1914	14,498,451	1,219	23,559,485	23,560,704	38,059,155
1915	131,483,396	667	29,365,701	29,366,368	160,849,764
1916	33,876,227	315	103,572,117	103,572,432	137,448,659
1917	26,986,548	86,087	196,460,961	196,547,048	223,533,596
1918	11,290,341	290,281	3,201,122	3,491,403	14,781,744
1919[1]	–	–	–	–	–
1920	50,463,494	–	–	50,045,396	100,508,890
1921	7,218,775	–	–	34,184,673	41,403,448
1922	4,788,246	–	–	23,337,331	28,125,577
1923	26,455,231	–	–	27,548,866	54,004,097
1924	3,496,705	12,521,619	12,924,211	25,445,830	28,942,535
1925	4,142,292	2,948,353	1,971,620	4,919,973	9,062,265
1926	51,437,859	45,880,408	25,242,303	71,122,711	122,560,570
1927	46,086,458	2,011,391	43,040,819	45,052,210	91,138,668
1928	31,308,807	3,008,960	58,878,007	61,886,967	93,195,774

[1] No record for 1919 imports and exports.

4.—Duties collected on Exports, 1868-1892, and on Imports for Home Consumption, 1868-1928, with Percentage of Expense of Collection to Gross Customs Revenue Collected, 1868-1928.

NOTE.—Duties on exports were not collected after the year 1892. The figures in this table are the gross figures of duties collected; the net national revenue from customs taxation, because of the drawbacks paid where commodities on which duties have been collected are afterwards exported in a more highly manufactured state, is considerably smaller. For statistics of net customs revenue see Table of Revenue Receipts in Chapter XXI on Public Finance.

Fiscal Years.	Duties collected on Exports.	Duties collected on Imports.	Percentage of Expense of Collection to Gross Customs Revenue.	Fiscal Years.	Duties collected on Exports.	Duties collected on Imports.	Percentage of Expense of Collection to Gross Customs Revenue.
	$	$	p.c.		$	$	p.c.
1868	17,986	8,801,446	5·99	1881	8,141	18,492,645	3·87
1869	14,403	8,284,507	7·09	1882	8,810	21,700,028	3·33
1870	37,912	9,425,028	5·41	1883	9,756	23,162,553	3·26
1871	36,066	11,807,590	4·21	1884	8,515	20,156,448	3·96
1872	24,809	13,020,684	4·04	1885	12,305	19,121,254	4·14
1873	20,152	12,997,578	4·35	1886	20,726	19,427,398	4·10
1874	14,565	14,407,318	4·55	1887	31,397	22,438,309	3·64
1875	7,243	15,354,139	4·44	1888	21,772	22,187,869	3·81
1876	4,500	12,828,614	5·61	1889	42,207	23,742,317	3·62
1877	4,103	12,544,348	5·75	1890	93,674	23,921,234	3·63
1878	4,161	12,791,532	5·58	1891	64,803	23,416,266	3·83
1879	4,272	12,935,269	5·56	1892	108	20,550,474	4·39
1880	8,896	14,129,953	5·04				

Fiscal Years.	Duties collected on Imports.	Percentage of Expense of Collection to Gross Customs Revenue.	Fiscal Years.	Duties collected on Imports.	Percentage of Expense of Collection to Gross Customs Revenue.	Fiscal Years.	Duties collected on Imports.	Percentage of Expense of Collection to Gross Customs Revenue.
	$	p.c.		$	p.c.		$	p.c.
1893	21,161,711	4·26	1905	42,024,340	3·49	1917	147,631,455[1]	2·54
1894	19,379,822	4·75	1906	46,671,101	3·31	1918	161,595,629[1]	2·51
1895	17,887,269	5·13	1907 (9 mos.)	40,290,172	3·04	1919	158,046,334[1]	3·13
1896	20,219,037	4·43	1908	58,331,074	3·30	1920	187,524,182[1]	2·49
1897	19,891,997	4·73	1909	48,059,792	4·15	1921	179,667,683[1]	3·36
1898	22,157,788	4·37	1910	61,024,239	3·31	1922	121,487,394[1]	3·22
1899	25,734,229	4·02	1911	73,312,368	2·98	1923	133,803,370[1]	2·58
1900	28,889,110	3·71	1912	87,576,037	2·78	1924	135,122,345	2·49
1901	29,106,980	3·86	1913	115,063,688	2·74	1925	120,222,454	3·09
1902	32,425,532	3·62	1914	107,180,578	3·59	1926	143,933,111	2·83
1903	37,110,355	3·31	1915	79,205,910[1]	4·77	1927	158,966,367	2·66
1904	40,954,349	3·31	1916	103,940,101[1]	3·55	1928	171,872,768	3·09

[1] Includes war tax.

5.—Exports to the United Kingdom, to the United States and to other Countries of Merchandise, the Produce of Canada, 1868-1928.

Fiscal Years.	Exports to United Kingdom.	Per cent Can. Exports to U.K. to total Can. Exports. (mdse.)	Exports to United States.	Per cent Can. Exports to U.S. to total Can. Exports. (mdse.)	Exports to Other Countries.	Total Exports of Canadian Produce.
	$	p.c.	$	p.c.	$	$
1868	17,905,808	36·9	25,349,568	52·3	5,249,523	48,504,899
1869	20,486,389	39·1	26,717,656	51·0	5,196,727	52,400,772
1870	22,512,991	38·1	30,361,328	51·4	6,169,271	59,043,590
1871	21,733,556	37·7	29,164,358	50·6	6,732,110	57,630,024
1872	25,223,785	38·3	32,871,496	49·9	7,735,802	65,831,083
1873	31,402,234	41·0	36,714,144	48·0	8,421,647	76,538,025
1874	35,769,190	46·6	33,195,805	43·3	7,777,002	76,741,997
1875	34,199,134	49·1	27,902,748	40·0	7,607,941	69,709,823
1876	34,379,005	47·4	30,080,738	41·5	8,031,694	72,491,437
1877	35,491,671	52·2	24,326,332	35·8	8,212,543	68,030,546
1878	35,861,110	52·7	24,381,009	35·9	7,747,681	67,989,800
1879	29,393,424	47·1	25,491,356	40·8	7,546,245	62,431,025
1880	35,208,031	48·3	29,566,211	40·6	8,125,455	72,899,697
1881	42,637,219	50·8	34,038,431	40·5	7,269,051	83,944,701
1882	39,816,813	42·3	45,782,584	48·6	8,538,260	94,137,657
1883	39,538,067	45·1	39,513,225	45·1	8,651,139	87,702,431
1884	37,410,870	46·9	34,332,641	43·0	8,089,587	79,833,098
1885	36,479,051	46·1	35,566,810	44·9	7,085,874	79,131,735
1886	36,694,263	47·2	34,284,490	44·1	6,777,951	77,756,704
1887	38,714,331	47·8	35,269,922	43·6	6,976,656	80,960,909
1888	33,648,284	41·3	40,407,483	49·6	7,326,305	81,382,072
1889	33,504,281	41·7	39,519,940	49·2	7,248,235	80,272,456
1890	41,499,149	48·7	36,213,279	42·5	7,545,158	85,257,586
1891	43,243,784	48·8	37,743,430	42·6	7,684,524	88,671,738
1892	54,949,055	55·5	34,666,070	35·0	9,417,341	99,032,466
1893	58,409,606	55·4	37,296,110	35·4	9,783,082	105,488,798
1894	60,878,056	58·6	32,562,509	31·4	10,411,199	103,851,764
1895	57,903,564	56·3	35,603,863	34·6	9,321,014	102,828,441
1896	62,717,941	57·2	37,789,481	34·4	9,200,383	109,707,805
1897	69.533,852	56·2	43,664,187	35·3	10,434,501	123,632,540
1898	93,065,019	64·4	38,989,525	27·0	12,494,118	144,548,662
1899	85,113,681	62,0	39,326,485	29·0	12,920,626	137,360,792
1900	96,562,875	57·1	57,996,488	34·2	14,412,938	168,972,301
1901	92,857,525	52·3	67,983,673	38·3	16,590,188	177,431,386
1902	100,347,345	55·8	66,567,784	34·0	20,104,634	196,019,763
1903	125,199,980	58·4	67,676,367	31·6	21,435,327	214,401,674
1904	110,120,892	55·5	66,856,885	33·7	21,436,662	198,414,439
1905	97,114,867	50·9	70,426,765	36·9	23,313,314	190,854,946
1906	127,456,465	54·1	83,546,306	35·5	24,481,185	235,483,956
1907[1]	98,691,186	54·7	62,180,439	34·4	19,673,681	180,545,306
1908	126,194,124	51·1	90,814,871	36·8	29,951,973	246,960,968
1909	126,384,724	52·1	85,334,806	35·2	30,884,054	242,603,584
1910	139,482,945	50·0	104,199,675	37·3	35,564,931	279,247,551
1911	132,156,924	48·2	104,115,823	38·0	38,043,806	274,316,553
1912	147,240,413	50·7	102,041,222	35·2	40,942,222	290,223,857
1913	170,161,903	47·8	139,725,953	39·3	45,866,744	355,754,600
1914	215,253,969	49·9	163,372,825	37·9	52,961,645	431,588,439
1915	186,668,554	45·6	173,320,216	42·3	49,430,066	409,418,836
1916	451,852,399	60·9	201,106,488	27·1	88,651,751	741,610,638
1917	742,147,537	64·5	280,616,330	24·4	128,611,901	1,151,375,768
1918	845,480,069	54·9	417,233,287	27·0	277,314,432	1,540,027,788
1919	540,750,977	44·5	454,873,170	37·4	220,819,659	1,216,443,806
1920	489,152,637	39·5	464,028,183	37·4	286,311,278	1,239,492,098
1921	312,844,871	26·3	542,322,967	45·6	333,995,863	1,189,163,701
1922	299,361,675	40·4	292,588,643	39·5	148,920,362	740,240,680
1923	379,067,445	40·7	369,080,218	39·6	183,303,780	931,451,443
1924	360,057,782	34·4	430,707,544	41·2	254,585,730	1,045,351,056
1925	395,843,433	37·0	417,417,144	39·0	255,806,766	1,069,067,353
1926	508,237,560	38·6	474,987,367	36·1	332,130,864	1,315,355,791
1927	446,872,851	35·7	466,422,789	37·3	338,861,866	1,252,157,506
1928	410,691,392	33·4	478,003,646	38·9	339,512,568	1,228,207,606

[1] Nine months.

6.—Imports from the United Kingdom, from the United States and from other Countries of Merchandise entered for Home Consumption, 1868-1928.

Fiscal Years.	Imports from United Kingdom.	Per cent Imports from U.K. to total Imports. (mdse.)	Imports from United States.	Per cent Imports from U.S. to total Imports. (mdse.)	Imports from Other Countries.	Total Imports for Home Consumption.
	$	p.c.	$	p.c.	$	$
1868	37,617,325	56·1	22,660,132	33·8	6,812,702	67,090,159
1869	35,496,764	56·2	21,497,380	34·0	6,160,797	63,154,941
1870	37,537,095	56·1	21,697,237	32·4	7,667,742	66,902,074
1871	48,498,202	57·6	27,185,586	32·3	8,530,600	84,214,388
1872	62,209,254	59·7	33,741,995	32·1	9,004,118	104,955,367
1873	67,996,945	54·6	45,189,110	36·3	11,323,074	124,509,129
1874	61,424,407	49·9	51,706,906	42·0	10,049,574	123,180,887
1875	60,009,084	51·1	48,930,358	41·7	8,469,126	117,408,568
1876	40,479,253	43·8	44,099,880	47·7	7,933,974	92,513,107
1877	39,331,621	41·8	49,376,008	52·5	5,418,765	94,126,394
1878	37,252,769	41·2	48,002,875	53·1	5,140,207	90,395,851
1879	30,967,778	39·3	42,170,306	53·6	5,564,435	78,702,519
1880	33,764,439	48·3	28,193,783	40·3	7,942,320	69,900,542
1881	42,885,142	47·4	36,338,701	40·6	11,264,486	90,488,329
1882	50,356,268	45·3	47,052,935	42·3	13,735,981	111,145,184
1883	51,679,762	42·4	55,147,243	45·3	15,034,491	121,861,496
1884	41,925,121	39·6	49,785,888	47·0	14,261,969	105,972,978
1885	40,031,448	40·1	45,576,510	45·7	14,147,817	99,755,775
1886	39,033,006	40·7	42,818,651	44·6	14,140,480	95,992,137
1887	44,741,350	42·6	44,795,908	42·6	15,569,952	105,107,210
1888	39,167,644	38·9	46,440,296	46·1	15,063,688	100,671,628
1889	42,251,189	38·7	50,029,419	45·9	16,817,588	109,098,196
1890	43,277,009	38·8	51,365,661	46·0	17,039,903	111,682,573
1891	42,018,943	37·7	52,033,477	46·7	17,481,534	111,533,954
1892	41,063,711	35·7	51,742,132	44·9	22,354,570	115,160,413
1893	42,529,340	36·9	52,339,796	45·4	20,301,694	115,170,830
1894	37,035,963	34·0	50,746,091	46·5	21,288,857	109,070,911
1895	31,059,332	30·9	50,179,004	49·8	19,437,555	100,675,891
1896	32,824,505	31·2	53,529,390	50·8	19,007,266	105,361,161
1897	29,401,188	27·6	57,023,342	53·5	20,193,297	106,617,827
1898	32,043,461	25·4	74,824,923	59·2	19,438,778	126,307,162
1899	36,966,552	24·7	88,506,881	59·2	23,948,983	149,422,416
1900	44,280,041	25·7	102,224,917	59·2	26,146,718	172,651,676
1901	42,820,334	24·1	107,377,906	60·3	27,732,679	177,930,919
1902	49,022,726	25·0	115,001,533	58·4	32,713,545	196,737,904
1903	58,793,038	26·2	129,071,197	57·3	37,230,574	225,094,809
1904	61,724,893	25·3	143,329,697	58·7	38,854,825	243,909,415
1905	60,342,704	24·0	152,778,576	60·6	38,842,934	251,964,214
1906	69,183,915	24·4	169,256,452	59·6	45,299,913	283,740,280
1907[1]	64,415,756	25·8	149,085,577	59·5	36,724,502	250,225,835
1908	94,417,320	26·8	205,309,803	58·2	52,813,756	352,540,879
1909	70,682,600	24·5	170,432,360	59·0	47,479,236	288,594,196
1910	95,337,058	25·8	218,004,556	58·9	56,976,585	370,318,199
1911	109,934,753	24·3	275,824,265	60·8	66,965,585	452,724,603
1912	116,906,360	22·4	331,384,657	63·4	74,113,658	522,404,675
1913	138,742,464	20·7	436,887,315	65·0	95,577,275	671,207,234
1914	132,070,406	21·4	396,302,138	64·0	90,821,454	619,193,998
1915	90,157,204	19·8	297,142,059	65·2	68,656,645	455,955,908
1916	77,404,361	15·2	370,880,549	73·0	59,916,224	508,201,134
1917	107,096,735	12·7	665,312,759	78·6	74,041,384	846,450,878
1918	81,324,283	8·4	792,894,957	82·3	89,313,338	963,532,578
1919	73,035,118	8·0	750,203,024	81·6	96,473,563	919,711,705
1920	126,362,631	11·9	801,097,318	75·3	137,068,174	1,064,528,123
1921	213,973,562	17·3	856,176,820	69·0	170,008,500	1,240,158,882
1922	117,135,343	15·7	515,958,196	69·0	114,710,793	747,804,332
1923	141,330,143	17·6	540,989,738	67·4	120,259,363	802,579,244
1924	153,586,690	17·2	601,256,447	67·3	138,523,730	893,366,867
1925	151,083,946	19·0	509,780,009	64·0	136,068,582	796,932,537
1926	163,731,210	17·6	608,618,542	65·6	154,978,980	927,328,732
1927	163,939,065	15·9	687,022,521	66·6	179,930,919	1,030,892,505
1928	185,895,857	16·8	719,436,237	64·9	203,624,372	1,108,956,466

[1] Nine months.

7.—Percentage Proportions of Imports from United Kingdom and United States respectively, to totals of dutiable and free in the 24 fiscal years 1905-1928.

NOTE.—For the years 1868 to 1904, see Canada Year Book, 1927-28, page 499.

Fiscal years.	United Kingdom.			United States.		
	Dutiable to total dutiable.	Free to total free.	Dutiable and free to all imports.	Dutiable to total dutiable.	Free to total free.	Dutiable and free to all imports.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1905	29·88	15·14	23·98	52·21	73·13	60·58
1906	30·40	15·03	24·42	51·74	71·90	59·59
1907 (9 months)	32·05	16·04	25·79	51·93	71·28	50·50
1908	32·64	17·35	26·83	50·59	70·51	58·16
1909	29·84	16·31	24·52	51·76	70·20	59·00
1910	31·60	16·49	25·78	52·29	69·22	58·81
1911	29·82	15·05	24·34	54·14	72·05	60·84
1912	26·69	14·72	22·42	58·72	71·74	73·37
1913	24·47	13·43	20·71	62·57	69·78	65·03
1914	24·95	14·26	21·35	60·81	70·16	63·96
1915	24·31	12·61	19·79	60·27	72·85	65·13
1916	17·97	11·63	15·24	68·93	78·29	72·95
1917	16·35	8·24	12·67	71·91	86·59	78·57
1918	10·70	5·54	8·45	79·61	86·29	82·27
1919	9·50	5·90	7·97	79·10	84·74	81·50
1920	13·44	8·93	11·87	72·04	81·26	75·25
1921	20·07	11·17	17·25	64·19	79·51	69·04
1922	19·20	8·72	15·66	62·97	80·88	69·02
1923	21·61	9·49	17·61	61·85	78·66	67·41
1924	21·32	9·12	17·19	60·20	81·21	67·30
1925	24·16	9·40	18·96	55·63	79·36	64·00
1926	22·83	8·89	17·65	57·97	78·94	65·76
1927	20·44	7·81	15·90	59·52	79·53	66·73
1928	21·13	8·98	16·76	58·59	76·06	64·87

8.—Average ad valorem Rates of Duty collected on Dutiable and Total Imports from United Kingdom, United States and all Countries in the 61 fiscal years 1868-1928.

Years.	U.K.		U.S.		All Countries.		Years.	U.K.		U.S.		All Countries	
	Dutiable imports.	Total imports.	Dutiable imports.	Total imports.	Dutiable imports.	Total imports.		Dutiable imports.	Total imports.	Dutiable imports.	Total imports.	Dutiable imports.	Total imports.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.		p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1868	–	–	–	–	20·2	13·1	1898	29·5	20·8	26·1	13·3	29·7	17·5
1869	16·9	13·5	20·1	7·3	20·2	13·1	1899	26·6	19·8	26·3	13·2	28·8	17·2
1870	16·8	13·4	19·5	7·8	20·9	14·1	1900	25·6	18·2	25·0	13·2	27·7	16·7
1871	16·4	13·5	16·3	8·4	19·6	14·0	1901	24·7	18·3	24·8	12·4	27·5	16·4
1872	16·4	12·7	18·0	7·1	19·1	12·4	1902	24·0	17·2	25·2	13·2	27·3	16·5
1873	15·6	10·9	17·7	6·5	18·3	10·4	1903	23·3	16·7	24·9	13·3	27·1	16·5
1874	16·5	12·8	17·4	7·1	18·9	11·7	1904	24·1	17·6	25·2	13·6	27·5	16·8
1875	18·1	14·8	17·3	7·9	19·6	13·1	1905	24·8	18·5	26·1	13·5	27·8	16·7
1876	18·8	15·0	19·2	9·3	21·3	13·9	1906	24·6	18·7	24·8	13·1	27·0	16·4
1877	19·4	16·2	18·7	7·9	20·6	13·3	1907 (9 m.)	24·3	18·4	24·2	12·8	26·5	16·1
1878	20·1	17·3	20·4	9·4	21·4	14·2	1908	24·2	18·3	24·6	13·2	26·7	16·5
1879	20·5	18·0	23·2	13·1	23·3	16·4	1909	25·8	19·0	24·9	13·2	27·5	16·7
1880	24·0	20·0	23·1	16·0	26·1	20·2	1910	25·1	18·9	24·8	13·5	26·8	16·5
1881	24·5	20·5	22·0	15·5	25·8	20·4	1911	24·6	18·9	24·7	13·7	25·9	16·2
1882	24·1	19·9	21·5	15·0	25·3	19·5	1912	25·0	19·1	25·0	14·8	26·1	16·8
1883	24·3	19·2	21·1	14·8	25·2	19·0	1913	25·1	19·6	24·9	15·8	26·1	17·1
1884	24·4	19·1	20·7	14·9	25·2	19·0	1914	25·2	19·5	24·8	15·6	26·1	17·3
1885	24·8	19·0	21·2	14·5	26·1	19·2	1915	27·1	20·5	25·1	14·2	27·4	16·8
1886	25·7	20·0	22·8	15·8	27·5	20·2	1916	28·4	19·1	25·0	13·5	27·2	15·5
1887	26·1	20·8	23·8	16·2	28·7	21·3	1917	24·9	17·6	22·7	11·4	23·8	13·0
1888	29·1	22·9	26·2	15·3	31·8	22·0	1918	24·3	17·3	20·5	11·1	21·5	12·1
1889	29·3	22·4	25·4	14·7	31·9	21·8	1919	22·3	15·3	20·9	11·6	21·5	12·3
1890	28·8	22·1	26·6	15·8	31·0	21·4	1920	22·1	16·2	22·5	14·0	22·5	14·7
1891	29·0	21·7	26·0	14·9	31·4	21·0	1921	20·9	16·6	20·3	12·9	20·6	14·1
1892	29·4	22·1	26·5	16·1	29·7	17·8	1922	24·8	20·1	23·0	13·9	24·5	16·2
1893	29·8	22·3	26·7	14·6	30·3	18·4	1923	24·5	20·1	22·5	13·8	24·9	16·7
1894	30·0	22·3	27·0	13·7	30·9	17·8	1924	22·3	18·3	22·3	13·2	22·9	15·1
1895	30·1	22·6	26·7	13·7	30·5	17·8	1925	22·1	18·2	23·1	13·0	23·3	15·1
1896	30·2	22·4	26·7	14·5	30·0	19·2	1926	21·6	18·4	23·9	13·2	24·7	15·5
1897	30·7	21·1	26·7	14·3	30·0	18·7	1927	23·9	19·7	23·1	13·2	24·1	15·4
							1928	25·6	20·6	23·3	13·5	24·2	15·5

9.—Imports for Home Consumption of certain Raw Materials used in Canadian Manufactures, 1911-1928.

NOTE.—For the years 1902 to 1910, see Canada Year Book, 1926, p. 463.

Fiscal years.	Iron ore.	Crude petroleum for refining.[1]	Rags, wastepaper and other waste.	Tin in blocks, ingots, etc.	Hides and skins, raw.[2]	Sugar, raw.	Tobacco, raw.	Oil for soap industry.
	ton.	gal.	cwt.	cwt.	$	ton.	lb.	gal.
1911	–	54,310,597	536,604	35,706	8,105,330	271,532	17,204,271	297,338
1912	–	72,231,006	564,292	41,740	8,903,727	281,402	17,203,518	407,825
1913	2,116,933	143,338,070	750,003	51,319	13,486,459	310,101	22,153,588	393,239
1914	1,972,207	177,879,835	716,882	46,076	8,831,010	347,168	17,598,449	393,862
1915	1,055,724	196,203,287	540,922	29,402	12,842,558	335,820	18,595,957	411,797
1916	1,595,995	186,753,081	510,472	32,756	12,441,731	298,433	20,834,672	615,923
1917	2,318,547	135,533,089	780,062	35,726	12,872,970	365,772	17,702,637	1,267,174
1918	2,203,506	191,376,057	505,643	38,683	8,796,966	382,807	17,824,947	2,081,672
1919	2,227,919	260,819,944	570,211	28,044	5,427,544	359,470	25,103,080	2,390,107
1920	1,632,011	298,540,725	826,593	44,010	22,654,661	540,787	24,345,295	861,462
1921	1,950,291	311,719,057	1,142,850	42,727	10,652,787	347,504	20,007,411	1,103,672
1922	656,902	391,292,960	686,483	27,242	5,898,087	432,212	20,870,509	1,342,390
1923	1,044,999	397,603,716	870,542	39,258	7,947,410	571,728	14,548,694	1,928,386
1924	1,807,223	418,791,375	1,123,282	39,837	7,297,750	419,710	15,941,339	1,886,162
1925	911,586	440,671,846	1,232,567	43,535	8,279,873	419,371	13,712,885	1,692,744
1926	1,053,593	470,616,511	1,307,473	44,409	9,329,543	579,272	14,943,864	2,591,232
1927	1,445,504	596,466,714	1,364,897	50,858	9,057,183	564,779	17,446,774	3,177,800
1928[3]	1,491,234	709,959,837	1,371,469	48,742	14,140,594	447,389	18,475,772	3,377,856

Fiscal years.	Noils and worsted tops.	Silk, raw, etc.	Manila grass and sisal.	Cotton, raw (including linters).	Hemp, dressed or undressed.	Wool, raw.	Gutta-percha, India-rubber, etc., crude.	Crude cotton seed oil.
	$	lb.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
1911	778,320	121,748	272,638	812,622	81,017	64,224	28,035	–
1912	689,304	112,581	290,362	727,939	82,661	71,954	44,313	80,916
1913	980,432	75,776	343,644	774,578	64,990	92,092	56,755	243,872
1914	1,072,066	101,669	189,010	769,930	55,572	72,521	44,504	265,789
1915	1,312,885	94,458	283,660	730,325	55,370	131,940	65,045	293,849
1916	2,587,949	80,745	382,233	969,679	50,914	211,407	99,132	430,013
1917	2,988,177	138,765	323,441	877,634	15,846	145,812	107,580	315,621
1918	4,418,854	158,648	491,739	880,374	45,177	115,380	130,956	408,850
1919	5,314,793	213,441	314,150	1,117,235	72,887	158,767	192,272	459,685
1920	5,847,787	298,985	453,853	964,715	46,553	117,717	244,335	578,986
1921	5,533,108[4]	272,508	453,754	986,315	47,090	92,772	228,062	417,301
1922	7,225,381[4]	371,570	187,521	953,860	77,833	125,867	189,525	488,683
1923	9,110,310[4]	368,026	216,818	1,252,615	203,844	182,556	253,957	258,381
1924	8,606,179[4]	335,495	268,722	955,966	340,402	193,217	288,857	216,082
1925	5,823,112[4]	361,403	255,317	1,008,793	249,032	143,629	344,509	213,201
1926	6,142,081[4]	529,446	439,699	1,355,738	281,639	134,344	469,893	335,755
1927	7,887,487[4]	679,923	519,807	1,497,438	123,426	164,234	502,312	297,706
1928[3]	8,133,120[4]	938,459	524,124	1,462,246	99,503	138,957	580,783	623,148

[1] Prior to 1917 includes all crude petroleum. [2] Value only; the trade returns do not give quantities.
[3] Figures for 1928 are subject to revision. [4] Pounds.

10.—Exports to the United Kingdom, to the United States and to All Countries, by Classes of Merchandise, the Produce of Canada, by values and percentages, fiscal years 1925-1928.

VALUES.

Classes.	1925.			1926.			1927.			1928.[1]		
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.
	$	$	$	$	$	$	$	$	$	$	$	$
Vegetable products (except chemicals, fibres and wood)	264,629,910	42,587,129	443,298,877	357,051,044	65,964,214	606,058,672	330,070,229	59,956,933	574,994,162	310,219,344	56,090,789	555,110,598
Animals and their products (except chemicals and fibres)	80,402,251	57,833,090	163,031,415	98,879,095	63,464,732	190,975,417	67,819,473	75,320,135	167,291,589	48,683,290	92,244,088	165,845,096
Fibres, textiles and textile products	2,145,762	4,894,415	9,711,720	1,237,763	4,628,071	8,940,046	860,030	3,451,081	7,665,563	1,896,794	4,922,004	10,904,073
Wood, wood products and paper	16,359,997	220,056,988	253,610,024	19,147,838	237,096,110	278,674,960	15,835,904	242,019,601	284,120,267	17,171,311	238,986,005	284,543,396
Iron and its products	6,689,169	5,063,148	57,405,940	8,307,441	7,582,833	74,735,077	8,129,365	10,680,762	74,284,824	8,195,972	8,831,287	62,753,934
Non-ferrous metals and their products	16,868,927	57,334,402	90,370,788	15,605,732	58,740,061	97,476,270	14,174,289	39,007,020	80,639,197	15,696,472	44,114,499	90,840,441
Non-metallic minerals and their products (except chemicals)	1,276,405	12,943,809	20,728,986	1,220,494	17,244,986	24,568,845	2,324,119	17,251,325	28,509,838	1,933,969	15,509,528	25,280,805
Chemicals and allied products	3,805,628	7,826,076	16,209,820	3,318,614	9,197,929	17,498,128	3,567,256	8,092,371	16,574,753	4,234,278	8,678,200	17,892,904
Miscellaneous commodities	3,665,384	8,878,087	14,699,783	3,469,539	10,258,431	16,428,376	4,092,186	10,643,561	18,077,313	2,668,575	8,629,714	15,036,359
Total	**395,843,433**	**417,417,144**	**1,069,067,353**	**508,237,560**	**474,987,367**	**1,315,355,791**	**446,872,851**	**466,422,789**	**1,252,157,506**	**410,700,005**	**478,006,114**	**1,228,207,606**

PERCENTAGE OF EACH CLASS.

	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Vegetable products (except chemicals, fibres and wood)	66·86	10·20	41·47	70·27	13·89	46·07	73·86	12·86	45·92	75·53	11·73	45·20
Animals and their products (except chemicals and fibres)	20·31	13·86	15·25	19·45	13·36	14·52	15·18	16·14	13·36	11·86	19·30	13·50
Fibres, textiles and textile products	0·54	1·17	0·91	0·24	0·97	0·68	0·19	0·74	0·61	0·46	1·03	0·89
Wood, wood products and paper	4·13	52·72	23·72	3·77	50·09	21·19	3·54	51·90	22·69	4·18	49·99	23·16
Iron and its products	1·69	1·21	5·37	1·63	1·60	5·68	1·82	2·29	5·94	2·00	1·85	5·11
Non-ferrous metals and their products	4·26	13·74	8·45	3·07	12·36	7·41	3·17	8·36	6·44	3·82	9·23	7·40
Non-metallic minerals and their products (except chemicals)	0·32	3·10	1·94	0·24	3·63	1·87	0·52	3·70	2·28	0·47	3·24	2·06
Chemicals and allied products	0·96	1·87	1·52	0·65	1·94	1·33	0·80	1·73	1·32	1·03	1·82	1·46
Miscellaneous commodities	0·93	2·13	1·37	0·68	2·16	1·25	0·92	2·28	1·44	0·65	1·81	1·22
Total	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**

[1] Figures for 1928 are subject to revision.

11.—Imports from the United Kingdom, from the United States and from All Countries, by Classes of Merchandise entered for Home Consumption, by values and percentages, fiscal years 1925-1928.

VALUES.

Classes.	1925.			1926.			1927.			1928.[1]		
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.
	$	$	$	$	$	$	$	$	$	$	$	$
Agricultural and vegetable products (except chemicals, fibres and wood)	28,265,980	76,561,849	173,585,839	34,613,364	98,495,849	203,417,431	38,254,029	97,104,543	213,098,121	51,133,838	102,209,033	238,185,560
Animal products (except chemicals and fibres)	4,653,919	28,588,214	41,491,969	5,960,932	32,954,470	49,185,558	5,404,629	35,437,384	53,214,135	6,090,435	40,582,857	65,790,021
Fibres, textiles and textile products	72,126,492	64,002,595	165,440,757	70,163,647	79,105,295	184,761,831	72,752,164	66,925,517	183,583,931	74,464,176	69,430,521	186,995,814
Wood, wood products and paper	3,438,101	32,653,591	38,185,383	3,473,664	34,714,964	40,403,096	3,918,098	41,122,392	47,962,298	4,360,348	43,992,228	51,750,924
Iron and its products	17,794,428	113,541,924	134,684,441	17,907,204	158,027,944	181,196,800	15,008,951	206,655,021	229,429,485	17,725,749	233,991,420	259,573,668
Non-ferrous metals and their products	4,010,443	33,297,222	41,111,550	5,302,581	37,810,205	47,692,985	5,642,570	42,224,587	52,747,842	5,794,918	48,385,742	60,190,036
Non-metallic minerals and their products (except chemicals)	9,648,724	111,970,906	131,013,294	14,226,799	110,678,814	139,033,940	9,253,721	131,955,558	156,784,707	14,467,621	117,447,997	153,049,438
Chemicals and allied products	4,146,061	16,366,165	24,760,237	4,282,489	18,746,266	28,404,276	4,907,477	20,623,830	31,844,715	4,422,349	22,246,232	33,572,113
Miscellaneous commodities	6,999,798	32,797,543	46,659,067	7,800,530	38,084,735	53,232,815	8,797,426	44,973,689	62,227,271	10,429,147	41,157,483	59,848,892
Total	**151,083,946**	**509,780,009**	**796,932,537**	**163,731,210**	**608,618,542**	**927,328,732**	**163,939,065**	**687,022,521**	**1,030,892,505**	**185,888,581**	**719,443,513**	**1,108,956,456**

PERCENTAGE OF EACH CLASS.

Agricultural and vegetable products (except chemicals, fibres and wood)	p.c. 18·71	p.c. 15·02	p.c. 21·78	p.c. 21·14	p.c. 16·15	p.c. 21·94	p.c. 23·33	p.c. 14·14	p.c. 20·67	p.c. 27·50	p.c. 14·21	p.c. 21·49
Animal products (except chemicals and fibres)	3·08	5·61	5·21	3·64	5·41	5·30	3·30	5·16	5·16	3·28	5·64	5·93
Fibres, textiles and textile products	47·74	12·56	20·76	42·85	12·97	19·93	44·28	9·74	17·81	38·45	9·65	16·86
Wood, wood products and paper	2·28	6·40	4·79	2·12	5·69	4·36	2·39	5·98	4·65	2·35	6·12	4·67
Iron and its products	11·78	22·27	16·90	10·94	25·92	19·54	9·16	30·08	22·25	9·53	32·52	23·40
Non-ferrous metals and their products	2·65	6·53	5·16	3·24	6·38	5·14	3·44	6·15	5·12	3·12	6·72	5·42
Non-metallic minerals and their products (except chemicals)	6·39	21·97	16·44	8·69	18·15	14·99	5·64	19·21	15·21	7·78	16·33	13·80
Chemicals and allied products	2·74	3·21	3·11	2·62	3·08	3·06	2·99	3·00	3·09	2·38	3·09	3·03
Miscellaneous commodities	4·63	6·43	5·85	4·76	6·25	5·74	5·37	6·54	6·04	5·61	5·72	5·40
Total	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**

[1]Figures for 1928 are subject to revision.

12.—Principal Exports of Canadian Produce from Canada to United

No.	Items.		United Kingdom.			
			1925.	1926.	1927.	1928.[1]
	I. Agricultural and Vegetable Products.					
	A. Mainly Food.					
	Fruits—					
	Fresh—					
1	Apples	brl.	1,271,922	1,290,050	944,152	800,515
		$	5,667,291	5,743,009	4,191,645	3,568,018
2	Berries	$	–	–	–	414
3	Other	$	11,720	64,072	53,758	57,765
4	Dried apples	lb.	458,343	742,935	294,570	114,585
		$	48,643	75,300	26,953	12,835
5	Canned or preserved	lb.	10,408,825	6,007,719	4,168,820	5,600,989
		$	778,712	514,889	326,605	435,079
6	Juices and syrups, n.o.p.	gal.	157,524	380,799	325,366	277,076
		$	18,694	367,011	268,159	172,998
	Total fruits	$	6,525,060	6,764,302	4,867,120	4,247,108
	Vegetables—					
	Fresh—					
7	Beets, sugar	ton	–	–	–	–
		$	–	–	–	–
8	Potatoes	bush.	367,533	–	–	–
		$	180,860	–	–	–
9	Turnips	bush.	–	586	–	–
		$	–	440	–	–
10	Canned	lb.	11,124,962	6,459,053	8,479,009	13,047,554
		$	798,978	475,019	618,862	916,544
11	Pickles	$	535,433	786,631	549,117	814,275
	Total vegetables[2]	$	1,515,605	1,262,283	1,168,186	1,730,977
	Grains and farinaceous products—					
	Grains—					
12	Barley	bush.	20,108,364	28,423,811	26,262,336	19,209,599
		$	16,636,960	19,052,771	16,138,117	15,329,821
13	Beans	bush.	40	–	666	1,000
		$	240	–	2,772	600
14	Buckwheat	bush.	338,912	201,282	92,765	78,949
		$	315,277	146,477	74,088	62,787
15	Oats	bush.	21,205,638	21,916,404	6,757,348	2,439,966
		$	10,071,613	10,813,929	3,674,015	1,395,242
16	Peas, whole	bush.	16,540	47,220	29,061	31,562
		$	58,104	108,712	106,270	108,333
17	Rye	bush.	4,670,708	2,623,547	5,512,811	4,703,076
		$	4,416,956	2,167,140	4,991,581	4,505,120
18	Wheat	bush.	142,975,589	186,383,041	179,985,704	188,657,268
		$	189,126,826	270,822,763	251,907,138	244,816,036
	Total grains[2]	$	220,687,453	303,138,870	276,922,802	266,221,508
	Milled products—					
19	Bran, shorts and middlings	cwt.	184,081	17,472	1,020	5,582
		$	268,264	27,884	1,965	9,421
20	Oatmeal	cwt.	627,034	451,971	309,074	274,338
		$	2,341,983	1,823,516	1,043,289	1,480,538
21	Wheat flour	brl.	3,274,976	2,791,646	3,589,007	3,072,494
		$	20,123,850	18,920,338	24,614,968	20,247,022
	Total milled products[2]	$	22,849,139	20,871,584	26,067,511	21,772,001
	Prepared foods and bakery products—					
22	Cereal foods, prepared	$	1,172,269	1,670,073	1,843,104	2,002,669
	Other grains and farinaceous products—					
23	Malt	bush.	–	–	–	–
		$	–	–	–	–
	Total grains and farinaceous products[2]	$	244,712,262	325,685,409	304,843,850	290,040,225

[1]Subject to revision. [2]Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
42,959	29,362	32,827	57,263	1,406,237	1,388,493	1,038,768	934,389	1
229,980	144,653	167,172	281,618	6,316,020	6,250,186	4,670,691	4,243,786	
383,304	496,680	466,061	420,102	384,424	497,472	466,425	420,673	2
43,519	39,309	71,478	22,026	61,037	109,258	129,503	84,153	3
–	–	43	–	1,467,214	4,399,926	1,778,239	1,856,937	4
–	–	3	–	164,434	456,508	163,348	210,049	
793,587	871,265	1,325,644	100,604	11,577,736	7,618,172	5,974,479	6,331,597	5
58,204	73,233	133,806	10,359	876,557	658,097	486,468	504,300	
–	20,403	43,469	8,494	161,223	427,942	414,178	260,746	6
–	14,797	85,996	5,045	20,744	411,597	399,237	207,432	
715,007	771,033	904,516	751,870	7,823,311	8,385,500	6,315,217	5,683,145	
22,032	45,097	63,580	53,225	22,032	45,097	63,580	53,225	7
132,855	270,782	395,966	323,683	132,855	270,782	395,966	323,683	
413,729	3,714,485	6,220,899	5,193,680	3,957,657	7,083,149	8,310,080	7,744,960	8
260,662	5,161,253	6,673,220	4,593,441	2,922,290	9,327,274	9,717,425	7,338,996	
2,995,426	2,427,707	2,038,770	2,617,847	3,019,864	2,449,535	2,049,849	2,630,958	9
563,332	621,256	661,161	703,688	569,752	629,316	665,272	708,548	
1,888,172	2,317,118	34,290	1,520	14,217,665	10,341,023	9,667,014	14,172,410	10
68,841	86,380	2,459	197	953,659	668,434	704,391	1,005,280	
23,551	30,831	18,926	31,384	572,102	834,548	592,317	870,088	11
1,167,316	6,310,825	7,865,695	5,811,009	5,406,503	12,019,599	12,340,934	10,474,192	
9,881	4,790	5,629	13,262	22,820,434	33,142,470	38,943,642	28,829,250	12
8,565	2,799	3,069	8,079	18,120,571	23,182,111	25,875,024	23,472,798	
14,521	56,445	20,770	118,735	18,686	58,202	22,251	120,386	13
52,632	147,949	62,434	420,455	64,548	153,257	67,387	422,842	
528,831	164,310	61,372	83,013	1,294,827	628,446	319,383	349,535	14
491,387	138,458	48,343	67,919	1,206,015	499,618	253,710	284,385	
4,488,246	583,733	536,792	876,284	32,775,761	43,058,283	15,438,329	7,158,723	15
1,987,922	264,748	255,984	501,719	16,044,436	24,237,693	8,598,755	4,275,353	
196,824	193,307	106,714	127,968	258,191	249,468	146,887	175,095	16
561,420	453,575	257,587	272,425	749,920	588,815	395,551	432,341	
3,784	17,805	4,960	1,522	7,524,895	5,363,137	6,495,384	10,424,643	17
5,161	21,381	4,088	1,215	6,979,414	4,971,794	6,050,140	10,648,740	
5,418,516	9,196,903	8,212,019	7,503,681	191,764,537	249,679,470	248,497,482	266,902,189	18
6,395,847	12,510,257	11,177,835	9,503,662	251,665,844	364,364,388	353,094,940	352,117,150	
9,513,850	13,547,939	11,817,384	10,780,819	294,910,430	418,094,401	394,423,836	391,695,566	
3,366,222	3,065,053	1,524,410	1,829,215	3,667,038	3,146,345	1,598,806	1,905,875	19
4,066,862	3,863,159	1,905,776	2,626,457	4,507,254	3,988,506	2,017,558	2,750,196	
612	7	4,888	–	830,046	590,015	367,448	345,565	20
2,095	32	17,325	–	3,008,053	2,297,320	1,624,029	1,799,408	
57,215	13,417	11,639	7,111	11,029,227	10,084,974	10,147,705	9,387,273	21
299,385	94,797	83,576	46,357	70,638,992	69,687,598	68,720,334	59,879,302	
4,369,661	3,959,821	2,008,677	2,674,584	78,318,752	76,131,574	72,464,181	64,504,395	
7,614	4,871	5,738	3,464	1,217,396	1,712,652	1,895,259	2,059,161	22
–	–	–	–	156,283	117,518	154,078	83,026	23
–	–	–	–	221,351	167,534	205,699	110,497	
14,861,979	18,286,643	14,431,534	14,216,483	375,768,842	497,032,698	469,783,504	459,301,260	

12.—Principal Exports of Canadian Produce from Canada to United

No.	Items.	United Kingdom.			
		1925.	1926.	1927.	1928.[1]
	I. Agricultural and Vegetable Products—con.				
	A. Mainly Food—concluded.				
	Sugar and its products—				
1	Candy ..... lb	35,739	33,919	14,774	49,198
	..... $	15,002	15,397	6,542	15,030
2	Confectionery, n.o.p. ..... $	23,268	55,560	263,392	291,710
3	Maple sugar and syrup, ... $	7,900	14,394	7,991	11,623
4	Sugar, n.o.p. ..... cwt.	871,845	2,622,642	1,729,435	651,236
	..... $	6,584,561	16,257,487	8,762,324	2,727,722
	Total sugar and its products[2] ..... $	6,630,731	16,398,326	9,040,279	3,046,085
	Tea and coffee—				
5	Coffee ..... lb.	1,400	–	–	–
	..... $	419	–	–	–
6	Hops ..... lb.	731,497	257,421	257,057	843,162
	..... $	235,213	94,407	85,323	226,175
	Total agricultural and vegetable products —A. Mainly Food[2] ..... $	**260,072,238**	**350,215,707**	**320,012,173**	**299,322,877**
	B. Other than Food.				
	Beverages—				
7	Brewed (ale, beer) ..... gal.	–	–	–	–
	..... $	–	–	–	–
	Distilled—				
8	Whiskey ..... gal.	34,171	6,537	31,623	47,984
	..... $	123,322	27,044	148,239	123,796
9	Other ..... gal.	20	4,423	13,934	14
	..... $	54	11,066	34,883	40
10	Fermented (wines) ..... gal.	260	128	128	178
	..... $	483	237	224	336
	Total beverages ..... $	123,859	38,347	183,363	124,172
11	Oil cake and meal ..... cwt.	33,736	97,619	13,440	16,800
	..... $	76,163	214,133	29,771	36,009
12	Oils, vegetable ..... gal.	–	–	–	–
	..... $	–	–	–	–
	Rubber—				
13	Raw and waste ..... $	–	4,658	–	–
14	Belting ..... lb.	51,279	285,999	124,547	154,609
	..... $	33,849	130,506	59,168	47,564
15	Boots and shoes ..... $	987,079	1,963,583	2,463,777	2,354,336
16	Hose ..... $	5,399	15,247	33,886	35,459
17	Tires ..... $	1,516,020	2,243,367	3,553,882	3,750,861
18	Other manufactures ..... $	74,806	113,627	160,200	552,271
	Total rubber ..... $	2,617,153	4,470,988	6,270,913	6,740,491
	Seeds—				
19	Clover ..... bush.	38,788	28,296	36,150	36,494
	..... $	293,296	273,399	498,820	395,906
20	Flaxseed ..... bush.	68,850	–	3	1,211
	..... $	174,182	–	18	4,320
	Total seeds[2] ..... $	491,864	299,842	537,637	422,232
	Tobacco—				
21	Unmanufactured ..... lb.	2,219,109	2,722,897	6,308,093	6,054,907
	..... $	645,730	1,030,250	2,562,918	2,212,474
22	Cigarettes ..... lb.	150	1,895	496	..... –
	..... $	97	670	216	–
23	Other manufactured ..... $	6,721	15,979	1,379	1,009
24	Fodders, n.o.p. ..... $	212,379	243,781	132,023	707,664
25	Hay ..... ton	21,837	36,317	20,110	58,400
	..... $	304,576	451,965	241,213	584,414
26	Senega root ..... lb.	71,605	58,367	77,304	4,836
	..... $	38,054	31,660	53,574	4,938
27	Straw ..... ton	453	807	499	2
	..... $	4,849	9,173	5,532	25
	Total agricultural and vegetable products —B. Other than Food[2] ..... $	**4,557,674**	**6,835,337**	**10,058,056**	**10,896,467**
	Total agricultural and vegetable products ..... $	**264,269,916**	**357,051,044**	**330,070,229**	**310,219,344**

[1] Subject to revision. [2] Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-28—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
3,653	24,851	12,060	3,567	1,158,879	1,545,609	1,616,078	1,569,366	1
815	4,733	6,132	1,277	380,879	501,563	498,590	489,988	
641	4,982	1,093	1,570	82,396	121,068	347,871	408,713	2
568,743	636,756	704,444	1,165,389	577,665	653,318	716,941	1,178,685	3
–	505	17,786	5,623	1,045,347	3,261,806	2,941,100	1,294,095	4
–	1,600	105,824	37,506	7,939,504	19,980,927	15,116,239	6,260,983	
650,171	778,878	906,008	1,274,301	9,061,074	21,443,948	16,768,728	8,407,424	
23,774	32,258	26,950	11,983	54,236	46,542	47,638	49,852	5
6,415	10,689	9,765	6,736	17,493	16,277	17,882	21,013	
–	1,600	–	1,912	741,571	261,466	257,897	868,877	6
–	1,155	–	765	236,176	95,647	85,365	230,115	
17,447,585	**26,227,177**	**24,169,866**	**22,101,503**	**398,981,224**	**539,220,391**	**505,501,701**	**484,316,535**	
2,970,702	3,749,741	4,223,987	3,799,170	3,142,048	3,786,164	4,252,583	3,825,003	7
4,634,751	5,114,860	5,524,704	5,376,633	4,860,984	5,156,103	5,554,092	5,401,429	
415,282	794,624	1,000,165	1,128,152	1,227,348	1,330,647	1,526,642	1,800,710	8
6,777,099	12,572,011	16,148,701	18,380,070	11,129,118	15,712,222	18,712,574	21,484,730	
11,626	15,647	26,752	20,420	33,381	28,794	56,523	25,379	9
176,875	220,191	371,983	270,371	208,541	248,946	452,190	292,147	
4,363	20,043	33,179	30,647	6,277	20,896	34,179	32,184	10
21,444	88,696	116,982	105,384	26,890	90,506	119,197	108,831	
11,610,169	17,995,758	22,162,370	24,132,188	16,225,533	21,207,777	24,838,053	27,287,137	
44,298	86,312	185,794	258,766	328,036	488,762	382,418	474,352	11
82,513	165,986	389,558	565,537	728,705	1,088,816	826,907	1,057,740	
135,022	183,330	296,627	32,938	434,750	227,147	341,022	42,167	12
56,238	83,694	107,727	24,077	166,182	139,965	160,971	36,110	
112,001	428,753	294,256	270,767	113,544	435,097	296,787	281,389	13
140	976	1,450	–	858,468	1,251,776	1,067,573	1,247,676	14
170	699	896	–	43,894	657,121	547,031	495,013	
1,843	7,257	1,943	2,052	2,833,037	4,862,943	6,374,621	6,348,022	15
61,831	82,157	71,843	59,228	161,079	235,214	279,489	250,325	16
24,753	17,278	98,394	26,933	7,409,608	14,003,701	18,564,229	20,267,765	17
30,338	30,212	40,537	20,479	397,294	532,783	633,346	983,437	18
230,936	566,347	507,869	379,459	11,358,456	20,726,859	26,695,503	28,625,951	
337,892	420,640	332,069	223,502	417,907	460,822	383,347	290,424	19
2,564,166	3,330,414	3,041,947	1,997,099	3,162,343	3,700,077	3,760,936	2,702,014	
2,962,137	5,378,435	2,664,070	2,170,096	3,031,165	5,378,435	2,664,073	2,171,779	20
6,590,781	12,883,015	5,371,812	4,290,900	6,765,767	12,883,015	5,371,830	4,296,570	
9,390,028	16,340,565	8,587,538	6,438,845	10,211,497	16,340,565	9,383,239	7,196,438	
10,868	38,376	8,648	6,660	3,531,422	2,860,413	6,330,972	6,079,606	21
3,842	7,788	2,909	2,358	733,166	1,045,673	2,569,300	2,215,916	
72	281	21	27	92,848	54,258	53,482	9,950	22
94	410	10	109	48,649	26,109	18,243	11,913	
60,202	67,489	97,851	17,953	97,554	108,758	138,804	74,772	23
1,149,591	968,021	585,473	617,285	1,466,477	1,335,736	843,534	1,515,856	24
185,812	314,295	283,402	95,826	225,403	368,787	321,732	171,164	25
2,000,511	3,050,269	2,775,177	899,291	2,544,582	3,711,840	3,246,176	1,684,100	
320,210	155,109	34,690	209,244	508,099	294,110	212,856	271,885	26
162,104	89,851	20,902	218,415	266,547	166,262	140,873	278,157	
25,812	24,334	31,321	23,090	26,449	25,290	32,004	23,258	27
147,575	134,089	171,602	125,835	154,686	144,638	179,226	127,571	
25,139,544	**39,737,037**	**35,787,967**	**33,989,286**	**44,317,653**	**66,838,281**	**69,492,461**	**70,794,963**	
42,587,129	**65,964,214**	**59,956,933**	**56,090,789**	**443,298,877**	**606,058,672**	**574,994,162**	**555,110,598**	

12.—Principal Exports of Canadian Produce from Canada to United

No.	Items.	United Kingdom.			
		1925.	1926.	1927.	1928.[1]
	II. Animals and Animal Products.				
	Animals, living—				
1	For exhibition ... $	5,575	–	–	–
2	For improvement of stock ... $	348	1,337	5,204	1,592
	Other—				
3	Cattle, 1 year or less ... No.	–	–	–	–
	$	–	–	–	–
4	Cattle more than 1 year old ... No.	86,245	117,819	61,671	1,222
	$	9,115,667	12,432,954	6,338,395	130,140
5	Horses ... No.	5	58	25	4
	$	1,415	13,500	18,775	11,900
6	Poultry ... No	–	–	–	–
	$	–	–	–	–
7	Sheep ... No	–	–	–	–
	$	–	–	–	–
8	Foxes ... No	113	12	31	25
	$	80,700	6,000	18,600	11,180
9	Swine ... No	–	1,410	–	–
	$	–	56,480	–	–
	Total animals, living[2] ... $	9,214,770	12,511,811	6,382,101	156,250
10	Bones, horns and hoofs ... $	147	696	–	–
	Fishery products, n.o.p.—				
	Fish—				
	Fresh—				
11	Halibut ... cwt.	–	50	–	–
	$	–	5,134	–	–
12	Herrings ... cwt.	–	–	–	–
	$	–	–	–	–
13	Lobsters ... cwt.	–	–	–	–
	$	–	–	–	–
14	Salmon or lake trout ... cwt.	–	5	–	–
	$	–	10	–	–
15	Mackerel ... cwt.	–	101	–	–
	$	–	811	–	–
16	Salmon ... cwt.	18,702	15,063	14,303	11,110
	$	353,827	312,466	334,881	257,839
17	Smelts ... cwt.	–	–	–	–
	$	–	–	–	–
18	Tullibee ... cwt.	–	–	–	252
	$	–	–	–	2,520
19	Whitefish ... cwt.	–	–	–	–
	$	–	–	–	–
20	Other fresh fish ... $	400	26,850	21,339	445
	Total fresh fish ... $	354,227	345,369	356,220	260,804
	Canned—				
21	Clams ... cwt.	–	37	–	–
	$	–	661	4	–
22	Codfish, boneless ... cwt.	–	–	–	–
	$	–	–	–	–
23	Herrings, sea ... cwt.	46	289	23	–
	$	447	3,570	208	–
24	Lobsters ... cwt.	24,194	36,160	28,218	25,131
	$	1,451,105	2,418,945	1,922,019	1,720,888
25	Salmon ... cwt.	265,761	165,887	127,751	136,947
	$	4,737,824	4,319,260	3,232,756	3,401,204
26	Sardines ... cwt.	–	–	–	292
	$	–	–	–	2,609
	Total canned fish[2] ... $	6,190,524	6,743,491	5,156,573	5,124,701
	Dried, salted, smoked or pickled—				
27	Codfish, dried ... cwt.	314	2,932	862	3,589
	$	2,434	32,027	8,226	29,058
28	Codfish, pickled ... cwt.	–	–	2	–
	$	–	–	10	–
29	Codfish, smoked ... cwt.	–	–	–	–
	$	–	–	–	–
30	Haddock ... cwt.	20	18	8	10
	$	152	216	37	81

[1]Subject to revision. [2]Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
411,650	323,822	357,598	443,017	417,225	328,022	357,598	443,017	1
191,140	333,900	486,991	836,081	226,087	377,387	520,914	878,328	2
42,319	65,507	64,608	78,280	42,506	66,002	64,905	78,671	3
577,519	929,178	1,083,290	1,590,714	578,886	932,619	1,086,154	1,593,495	
82,231	105,231	89,003	200,013	175,578	228,107	153,977	204,668	4
3,053,973	4,177,060	3,543,005	11,253,203	12,636,515	16,880,390	10,080,373	11,571,796	
1,031	991	704	449	1,429	1,413	2,017	3,547	5
142,021	186,708	109,605	79,835	191,615	241,237	275,536	309,326	
831,428	974,282	849,511	676,785	835,048	976,459	850,901	677,919	6
659,669	808,556	750,838	579,239	662,540	810,253	752,593	580,333	
25,146	30,957	17,454	15,907	27,103	32,642	18,780	17,333	7
221,675	245,866	127,777	149,714	234,939	257,478	138,336	160,535	
5,615	4,329	3,276	2,276	5,802	5,590	3,908	3,806	8
1,260,444	953,346	619,892	435,287	1,388,459	1,424,686	880,767	979,337	
66,845	45,382	173,072	116,581	68,612	51,493	174,670	119,000	9
1,260,416	1,175,334	3,872,322	2,274,244	1,273,279	1,248,019	3,890,413	2,296,931	
7,878,668	9,233,160	11,046,994	17,745,664	17,713,727	22,611,121	18,082,832	18,929,781	
82,640	77,822	84,677	132,772	91,466	87,701	86,248	133,601	10
40,902	33,069	31,883	32,135	41,113	33,746	32,140	32,366	11
589,744	423,812	465,619	429,749	592,810	430,884	469,219	424,303	
414,050	245,370	308,954	293,370	414,060	245,536	309,250	293,767	12
912,208	488,844	618,883	745,215	912,268	489,999	620,838	747,872	
46,236	46,660	49,530	43,370	46,236	46,662	49,532	43,370	13
1,269,666	1,255,822	1,396,660	1,347,865	1,269,666	1,255,876	1,396,700	1,347,865	
36,950	39,752	38,998	46,171	36,950	39,757	38,998	46,171	14
386,113	417,463	440,888	511,247	386,123	417,565	440,888	511,247	
63,379	43,933	24,175	14,257	63,379	44,042	24,175	14,257	15
504,561	289,880	151,206	127,319	504,561	290,763	151,206	127,319	
87,001	68,607	56,302	82,458	108,945	89,463	75,800	78,105	16
884,538	725,234	640,416	654,733	1,282,256	1,116,519	1,053,739	974,850	
57,645	78,411	82,338	72,104	57,648	78,441	82,343	72,124	17
759,757	1,050,420	1,115,709	1,029,199	759,795	1,050,420	1,115,778	1,029,501	
35,693	53,610	76,963	92,427	35,693	53,610	76,963	92,679	18
118,375	323,860	459,245	528,874	118,375	323,860	459,245	531,394	
105,375	117,456	124,480	112,097	105,380	117,456	124,480	112,097	19
1,170,392	1,374,946	1,406,006	1,387,607	1,170,456	1,374,946	1,406,006	1,386,607	
2,710,428	3,043,074	3,424,796	3,408,981	2,740,625	3,138,188	3,498,164	3,442,385	20
9,305,782	9,393,355	10,119,428	10,161,789	9,736,925	9,889,020	10,611,783	10,524,343	
9,078	8,416	8,714	10,711	9,080	8,454	8,742	10,767	21
166,188	141,276	149,500	144,910	166,220	141,962	149,819	145,675	
14,990	18,731	19,004	18,073	15,061	18,889	19,124	18,397	22
154,627	189,591	189,662	182,386	155,566	191,165	190,911	185,665	
3	3	–	–	25,055	31,057	47,487	392	23
16	30	3	–	246,727	294,536	439,294	4,317	
12,967	13,602	16,464	14,882	45,987	59,680	53,047	47,687	24
719,455	871,066	1,081,104	963,098	2,820,339	4,037,259	3,668,954	3,319,623	
14,480	2,110	21,669	3,112	777,264	670,885	601,539	574,496	25
246,895	23,651	311,443	51,332	10,425,325	10,467,680	9,717,353	9,151,062	
–	–	–	262	–	–	–	59,219	26
–	–	–	2,499	–	–	–	548,495	
1,313,724	1,254,687	1,752,630	1,374,048	13,932,958	15,271,927	14,270,227	13,528,872	
116,224	141,176	140,706	122,712	493,341	594,378	638,266	625,983	27
1,014,570	1,243,333	1,043,147	899,061	4,547,247	5,246,462	4,769,436	4,555,545	
88,503	75,053	66,930	55,810	89,965	77,495	67,095	55,872	28
400,489	345,159	299,288	241,848	404,790	364,926	300,263	242,172	
2,636	17,070	22,981	21,830	2,667	17,136	23,078	21,947	29
31,189	202,775	281,737	255,213	31,593	204,718	282,611	256,753	
23,995	21,487	29,695	20,514	55,737	51,570	58,158	38,757	30
218,459	209,084	240,086	148,661	453,038	432,577	414,057	261,389	

12.—Principal Exports of Canadian Produce from Canada to United

No.	Items.		United Kingdom.			
			1925.	1926.	1927.	1928.[1]
	II. Animals and Animal Products—continued.					
	Fishery Products, n.o.p.—concluded.					
	Dried, salted, smoked or pickled—concluded.					
	Fish—concluded.					
	Herring, sea—					
1	Dry-salted	cwt.	–	–	–	–
		$	–	–	–	–
2	Pickled	cwt.	–	–	–	–
		$	–	–	–	–
3	Smoked	cwt.	110	40	20	25
		$	720	380	140	188
4	Mackerel, pickled	cwt.	–	–	–	–
		$	–	–	–	–
5	Pollock, hake and cusk, dried	cwt.	657	–	–	–
		$	3,522	–	–	–
6	Salmon, dry-salted (chum)	cwt.	–	–	–	–
		$	–	–	–	–
7	Salmon, pickled	cwt.	972	628	628	150
		$	22,043	15,187	16,059	1,806
	Total dried, salted, smoked or pickled[2]	$	28,871	47,835	24,538	31,449
8	Other fishery products	$	137	35,792	40,047	1,833
	Total fishery products, n.o.p.[3]	$	6,573,759	7,172,487	5,577,378	5,418,787
	Furs, hides and leather—					
	Furs—					
	Undressed—					
9	Beaver	No.	64,728	46,523	52,252	56,076
		$	1,181,808	1,017,154	1,191,242	1,557,031
10	Fox, black and silver	No.	3,409	4,387	9,805	12,469
		$	331,659	320,750	783,629	1,191,672
11	Fox, other	No.	40,615	68,597	74,526	53,755
		$	983,100	1,721,706	1,764,940	1,772,275
12	Marten	No.	31,118	34,685	40,595	30,092
		$	792,863	714,778	801,290	725,677
13	Mink	No.	75,222	68,768	53,978	56,077
		$	871,473	780,131	751,660	962,794
14	Muskrat	No.	729,616	550,256	446,009	515,325
		$	1,024,643	623,702	631,102	954,903
15	Other	$	1,112,999	1,188,522	1,308,874	1,984,850
16	Dressed	$	10,196	43,120	27,937	10,385
17	Manufactures	$	28,612	21,694	14,997	25,613
	Total furs	$	6,337,353	6,431,557	7,275,671	9,185,200
	Hides and skins, raw—					
18	Calf	cwt.	–	–	317	–
		$	–	–	4,365	–
19	Cattle	cwt.	23,560	2,878	2,173	–
		$	271,386	46,373	29,845	–
20	Horse	cwt.	–	–	–	–
		$	–	–	–	–
21	Sheep	cwt	–	–	9	–
		$	–	–	180	–
	Total hides and skins[2]	$	273,932	48,087	34,806	–
	Leather unmanufactured—					
22	Harness	$	366	441	361	–
23	Sole	lb.	2,052,217	1,431,368	1,130,076	1,103,505
		$	497,355	456,462	395,196	492,773
24	Upper	lb.	–	–	527,050	1,013,961
		$	1,153,039	644,997	1,032,584	1,950,591
	Total leather, unmanufactured[2]	$	1,658,157	1,102,274	1,430,108	2,452,900

[1]Subject to revision. [2]Totals include other items not specified. [3]Exclusive of fish, whale, etc. oils.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
3,512	4,609	10,284	64	994,801	1,281,214	803,849	1,080,491	1
7,393	10,232	26,460	194	1,642,016	2,405,279	1,524,410	2,019,466	
25,374	27,566	20,423	24,103	60,533	72,228	57,798	62,554	2
101,278	102,426	78,173	80,752	221,899	256,442	199,016	184,457	
32,552	37,305	35,214	37,961	58,635	100,985	90,418	85,779	3
151,570	170,301	141,466	144,125	277,734	413,453	303,358	296,733	
45,592	18,285	5,485	9,804	79,156	70,219	50,315	50,796	4
353,692	110,901	49,581	85,254	572,727	375,473	367,246	327,184	
6,933	3,691	6,330	3,704	51,470	38,623	53,445	40,635	5
44,588	19,921	28,984	18,650	359,454	267,131	300,871	229,347	
51	247	2	20	178,012	180,098	149,718	97,649	6
425	251	47	95	498,404	694,632	552,896	363,608	
16,311	17,053	13,821	12,856	23,948	30,511	19,551	25,428	7
279,403	260,547	293,720	302,291	389,107	526,867	407,772	560,799	
2,658,282	2,738,225	2,554,310	2,237,538	9,491,274	11,316,916	9,569,462	9,417,469	
133,990	130,243	186,001	200,204	161,802	314,800	801,948	1,075,962	8
13,411,778	13,516,510	14,612,369	13,973,579	33,322,959	36,792,663	35,253,420	34,546,646	
126,679	110,369	109,721	86,466	192,084	157,307	162,148	143,969	9
2,566,913	2,626,659	2,609,967	2,460,946	3,762,715	3,652,998	3,804,836	4,043,084	
527	4,156	4,901	4,451	4,593	10,710	17,236	21,338	10
54,874	239,141	371,687	418,292	459,417	710,442	1,368,272	2,090,131	
67,078	84,379	69,434	71,577	109,047	155,056	145,456	126,029	11
1,257,044	1,478,884	1,431,155	2,369,848	2,265,108	3,245,130	3,228,348	4,165,419	
26,578	19,319	20,926	25,609	51,801	54,055	61,650	56,033	12
473,310	383,793	406,927	687,746	1,271,222	1,099,656	1,212,340	1,420,809	
125,789	141,828	103,789	70,205	205,494	211,839	158,332	128,287	13
1,383,326	1,727,265	1,576,610	1,192,249	2,305,723	2,520,505	2,339,887	2,180,472	
1,834,323	1,105,084	1,152,161	944,001	2,571,083	1,676,736	1,600,151	1,479,353	14
2,151,744	1,368,663	1,936,977	1,980,626	3,188,241	2,016,862	2,570,852	2,972,477	
2,567,129	2,737,312	4,417,380	5,058,637	3,708,249	3,952,073	5,760,470	7,150,841	15
10,071	45,514	124,713	98,884	48,446	132,311	209,423	179,174	16
29,161	34,808	67,594	68,523	110,860	102,463	114,259	112,837	17
10,493,566	10,642,039	12,943,010	14,335,751	17,119,981	17,432,440	20,608,687	24,315,244	
73,648	73,876	91,085	102,494	73,649	73,878	91,402	102,984	18
1,458,692	1,441,987	1,589,242	2,255,497	1,458,709	1,442,025	1,593,607	2,266,606	
371,892	384,950	407,256	469,839	431,907	410,666	428,228	484,625	19
4,180,887	4,670,277	4,570,412	8,317,880	4,884,201	5,027,113	4,836,380	8,601,855	
15,041	16,495	16,458	17,059	15,041	16,495	16,458	17,059	20
121,286	132,224	118,663	189,708	121,286	132,224	118,663	189,708	
25,293	18,705	26,932	30,139	25,294	18,705	26,955	30,176	21
637,133	456,518	452,983	577,399	637,141	456,518	453,785	579,899	
6,458,009	6,753,147	6,787,040	11,416,611	7,163,894	7,111,735	7,058,766	11,714,357	
378,188	477,175	244,225	514,889	385,568	487,465	250,133	523,380	22
4,796,123	5,396,414	6,696,974	7,569,827	7,280,169	7,274,198	8,433,389	9,112,079	23
1,640,517	1,812,643	2,098,178	2,965,413	2,324,961	2,465,836	2,751,380	3,658,820	
–	–	1,828,819	1,997,260	–	–	2,469,999	3,157,807	24
3,210,642	3,483,544	4,189,865	4,713,807	4,580,892	4,238,311	5,316,936	6,961,829	
5,311,184	5,838,481	6,571,424	8,222,552	7,383,888	7,260,261	8,364,632	11,186,175	

12.—Principal Exports of Canadian Produce from Canada to United

No.	Items.		United Kingdom. 1925.	1926.	1927.	1928.[1]
	II. Animals and Animal Products—continued.					
	Furs, hides and leather—concluded					
	Leather, manufactured—					
1	Boots and shoes	$	111,125	59,536	43,686	29,475
	Total leather and manufactures of[2]	$	1,771,211	1,180,561	1,481,983	2,495,792
2	Hair	$	2,899	1,543	17,674	106,620
	Meats—					
	Fresh—					
3	Beef	cwt.	89,035	80,881	23,737	1,065
		$	646,338	617,304	209,893	8,575
4	Mutton	cwt.	8,564	1,279	–	97
		$	168,403	26,442	–	1,915
5	Pork	cwt.	16,750	17,734	19,951	11,416
		$	238,920	364,934	418,253	212,739
6	Poultry	$	175,563	385,418	93,449	16,687
	Cured, canned or prepared—					
7	Bacon and hams	cwt.	1,193,186	1,232,926	755,621	517,300
		$	22,034,323	27,944,472	18,057,904	10,241,395
8	Beef, pickled	cwt.	10	–	–	–
		$	211	–	–	–
9	Canned meats	lb.	458,488	268,580	225,928	224,508
		$	168,834	94,816	85,838	95,843
10	Pork, dry-salted	cwt.	63,192	43,079	57,156	36,745
		$	916,511	893,272	1,189,424	687,541
11	Pork, pickled	cwt.	2,040	2,431	448	118
		$	33,815	43,080	11,296	2,857
12	Soups, all kinds	$	–	106,130	216,347	247,038
	Total meats[2]	$	24,613,041	30,755,698	20,626,205	11,741,991
	Milk and its products—					
13	Cream, fresh	gal.	–	–	120	324
		$	–	–	210	926
14	Milk, fresh	gal.	–	–	–	–
		$	–	–	–	–
15	Butter	cwt.	158,030	181,104	68,554	470
		$	5,592,625	6,747,115	2,206,026	15,450
16	Casein	lb.	26,400	100	1,680	–
		$	1,584	8	234	–
17	Cheese	cwt.	1,204,544	1,338,366	1,190,000	892,188
		$	22,658,418	31,115,093	21,668,564	17,827,648
18	Milk powder	cwt.	23,728	20,989	26,640	28,152
		$	195,258	222,323	233,972	246,659
19	Milk, condensed	cwt.	125,143	99,492	23,053	19,660
		$	1,285,443	898,717	224,775	195,520
20	Milk, evaporated	cwt.	–	–	84,396	84,897
		$	–	–	764,025	695,767
	Total milk and its products	$	29,733,328	38,983,256	25,097,806	18,981,970
	Oils, fats, greases and wax—					
21	Animal oils	gal.	177	3,182	30	757
		$	3,638	12,012	124	700
22	Fish, whale, etc., oils	gal.	252,943	34,553	40,701	–
		$	110,028	19,962	14,511	–
23	Grease and scraps	cwt.	–	–	–	–
		$	–	–	–	–
24	Lard	cwt.	42,071	32,508	30,927	13,457
		$	670,301	587,766	487,206	176,250
25	Lard compound	cwt.	–	–	–	–
		$	–	–	–	–
26	Tallow	cwt.	447	48	103	22
		$	3,202	330	823	175
	Total oils, fats, greases and wax[2]	$	787,169	620,070	502,664	177,125

[1] Subject to revision. [2] Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
110,660	124,147	159,958	206,585	329,348	303,480	322,439	281,014	1
5,749,173	6,396,693	7,109,132	8,850,754	8,066,602	8,033,940	9,090,787	11,923,780	
372,466	511,583	431,333	387,056	385,583	523,026	460,830	598,426	2
86,028	120,388	147,647	495,063	262,309	330,664	235,555	532,758	3
938,494	1,401,177	1,836,353	6,566,780	2,292,024	2,996,622	2,638,227	7,021,119	
1,487	21,247	10,474	15,622	11,672	24,866	12,866	18,433	4
36,190	523,130	246,557	323,383	233,646	593,475	292,240	381,282	
66,084	66,445	131,540	83,053	96,068	86,691	153,906	97,282	5
1,160,817	1,332,788	2,885,301	1,629,428	1,574,118	1,737,307	3,350,832	1,886,823	
137,682	311,110	325,962	64,865	381,815	786,515	492,444	158,506	6
9,525	12,362	24,722	42,866	1,208,721	1,253,760	787,447	568,447	7
230,640	412,787	855,648	1,481,300	22,392,223	28,590,301	19,117,097	11,940,909	
315	857	34,084	45,256	3,097	7,111	36,180	47,405	8
2,938	14,751	336,150	403,582	26,216	72,599	360,757	427,267	
8,334	1,237	164	48	512,679	334,638	288,913	307,968	9
1,990	365	79	10	180,667	110,302	101,726	117,287	
369	98	190	33	65,192	43,995	60,244	39,047	10
3,540	1,800	2,920	437	939,813	913,514	1,242,488	732,253	
508	–	10,379	10,069	19,619	19,205	27,235	27,152	11
7,356	–	255,227	195,765	241,459	275,670	477,020	401,338	
–	64	6	297	–	106,574	217,768	248,493	12
2,801,467	4,334,133	7,243,564	11,288,594	29,032,978	37,111,933	29,408,705	24,472,478	
3,384,186	4,120,181	4,495,917	4,016,961	3,384,186	4,120,181	4,496,528	4,017,796	13
5,520,853	6,989,295	7,749,341	7,118,254	5,520,853	6,989,295	7,750,233	7,119,925	
3,088,212	4,598,199	4,886,445	3,624,794	3,088,212	4,598,199	4,886,445	3,624,794	14
558,315	854,625	990,746	721,557	558,315	854,625	990,746	721,557	
34,377	17,774	3,486	2,661	245,020	233,039	98,784	26,433	15
1,181,898	594,303	106,718	101,252	8,715,962	8,773,125	3,351,589	1,053,553	
94,105	185,682	238,421	227,675	120,505	187,950	276,501	318,695	16
7,152	15,117	24,841	28,458	8,736	15,331	29,901	40,195	
7,588	1,958	140,620	125,335	1,269,632	1,483,335	1,366,654	1,052,126	17
161,951	62,035	2,413,584	2,444,452	24,112,475	33,718,587	24,956,179	21,100,625	
15,122	53,347	46,090	36,315	72,057	80,885	74,406	67,255	18
174,344	522,769	611,195	348,969	703,039	863,151	869,412	629,057	
74,253	46,543	29,803	8,916	400,526	375,341	231,017	209,753	19
870,638	439,386	275,041	80,069	4,487,792	3,993,814	2,695,945	2,456,337	
–	–	16,173	10,504	–	–	109,038	108,632	20
–	–	132,959	91,589	–	–	972,012	904,186	
8,475,151	9,507,530	12,304,425	10,934,600	44,107,172	55,207,928	41,616,017	34,025,435	
12,982	22,419	4,019	93,390	132,243	178,011	79,716	233,028	21
17,204	30,221	4,723	114,243	197,820	226,131	93,574	275,192	
920,829	1,109,647	1,997,730	2,329,274	1,183,256	1,152,110	2,381,902	2,342,847	22
484,531	586,048	901,894	985,628	599,373	609,391	1,058,126	993,225	
11,302	12,644	16,129	15,593	29,700	28,942	29,387	30,099	23
26,068	40,603	44,432	52,971	202,894	240,243	174,024	178,434	
10	3	280	550	105,974	64,474	58,021	36,379	24
144	50	3,674	7,329	1,681,462	1,153,445	904,787	508,523	
8	19	19	8	18,492	19,473	13,820	13,925	25
93	269	289	95	238,787	252,891	179,700	168,862	
18,390	13,601	16,694	30,262	22,100	15,721	20,704	30,453	26
152,067	120,487	131,635	236,383	180,439	137,755	164,748	238,453	
680,932	779,775	1,001,467	1,399,002	3,101,699	2,622,040	2,579,832	2,365,544	

12.—Principal Exports of Canadian Produce from Canada to United

No.	Items.		United Kingdom.			
			1925.	1926.	1927.	1928.[1]
	II. Animals and Animal Products—concluded.					
	Other animal products—					
1	Eggs	doz.	2,330,830	2,173,009	1,470,610	336,562
		$	858,098	867,545	564,012	121,269
2	Honey	lb.	375,410	482,899	408,441	582,137
		$	42,000	58,705	48,090	65,740
3	Sausage casings	$	178,678	205,819	161,051	192,007
4	Tankage	cwt.	–	–	–	–
		$	–	–	–	–
	Total Animals and Animal Products[2]	$	**80,402,251**	**98,879,095**	**67,819,473**	**48,683,290**
	III. Fibres and Textiles.					
	Cotton—					
5	Waste	cwt.	530	441	–	225
		$	12,584	4,241	–	2,752
6	Duck	yd.	92,081	45,312	25,140	53,473
		$	77,711	80,995	48,781	34,308
7	Other fabrics	yd.	141,194	83,178	22,869	47,475
		$	35,233	20,090	7,133	11,843
8	Underwear	$	85,385	53,135	68,614	31,244
	Total cotton[2]	$	229,997	185,559	143,362	423,532
	Flax, hemp and jute—					
9	Flax fibre and tow	cwt.	9,210	287	–	2
		$	118,150	7,185	–	35
	Total flax, hemp and jute[2]	$	124,412	11,025	2,132	663
10	Silk	$	217,468	94,100	4,259	856
	Wool—					
11	Raw	lb.	1,045,292	25,221	383,689	2,611,304
		$	534,984	7,908	100,722	719,521
12	Fabrics	yd.	447	3,318	1,253	55
		$	693	5,154	2,187	45
13	Underwear	$	22,259	518	133	–
	Total wool[2]	$	613,576	27,710	109,982	733,298
	Miscellaneous—					
14	Artificial silk	$	–	–	726	327,296
15	Rags	cwt.	25,611	12,540	13,571	23,827
		$	281,988	169,596	160,243	237,356
16	Binder twine	cwt.	986	12,812	8,253	1,120
		$	11,200	144,144	90,836	11,983
17	Bags, textile	$	65,294	80,503	16,983	49,789
18	Felt, mfrs	$	95,281	89,761	84,237	73,707
19	Corsets and brassieres	No.	205,650	180,547	144,246	7,374
		$	476,856	288,934	213,149	12,915
20	Gloves, etc., textile	$	90	–	1,127	–
21	Socks and stockings	$	–	–	10,754	3,554
	Total Fibres and Textiles[2]	$	**2,145,762**	**1,237,763**	**860,030**	**1,896,794**
	IV. Wood, Wood Products and Paper.					
	Wood, unmanufactured—					
	Logs and round timber—					
22	Logs, cedar	M ft.	–	–	–	100
		$	–	–	–	725
23	Logs, other	M ft.	2,689	1,982	3,045	2,377
		$	99,018	71,005	113,980	97,255
24	Poles, telegraph	No.	–	–	–	–
		$	–	–	–	–
25	Railway ties	No.	327,860	388,061	240,610	57,481
		$	231,242	267,592	174,560	39,412
	Total logs and round timber[2]	$	330,260	333,597	288,761	141,030

[1] Subject to revision. [2] Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
119,435	62,865	47,827	18,786	2,690,959	2,501,191	1,730,849	517,991	1
48,187	25,127	20,457	6,749	1,000,804	995,349	669,609	194,121	
47,631	57,204	65,812	41,706	918,997	1,645,618	1,568,712	2,097,023	2
6,594	7,855	9,118	5,572	101,895	167,211	147,555	187,237	
603,827	787,745	678,215	706,012	1,000,320	1,306,344	1,180,791	1,251,890	3
362,279	318,688	306,305	304,539	362,871	318,688	306,305	304,539	4
540,246	531,701	596,704	698,948	541,840	531,701	596,704	698,948	
57,833,090	**63,464,732**	**75,320,135**	**92,244,088**	**163,031,415**	**190,975,417**	**167,291,589**	**165,845,096**	
3,799	7,202	3,189	4,388	9,933	8,962	3,572	5,117	5
59,771	114,074	31,575	40,789	101,703	126,715	35,493	48,114	
154	1,072	–	648	693,728	917,022	403,418	502,808	6
222	343	–	288	441,211	712,720	247,221	267,584	
9,821	12,358	15,212	5,954	283,783	468,229	317,985	556,770	7
2,991	5,497	5,770	2,098	65,131	101,950	65,519	90,538	
2,283	3,959	5,956	3,219	224,601	213,081	167,830	148,013	8
86,585	135,431	59,824	65,750	990,271	1,291,012	631,341	1,009,560	
14,468	8,955	5,384	3,227	29,934	10,176	5,384	4,312	9
171,073	78,485	28,356	31,646	400,046	109,870	28,356	53,681	
187,475	102,196	99,752	51,703	429,904	143,866	108,124	81,804	
13,085	20,679	6,512	6,823	392,981	247,200	81,166	137,358	10
4,553,166	6,468,804	4,790,683	8,254,566	5,625,265	6,514,767	5,233,981	11,140,101	11
1,887,791	2,325,754	1,415,784	2,351,662	2,434,524	2,342,887	1,538,660	3,149,967	
3,775	2,404	4,288	501	14,405	16,359	12,204	12,238	12
5,713	3,021	5,267	863	21,701	28,307	17,844	16,464	
2,753	2,977	2,662	1,796	93,802	71,292	41,597	40,231	13
2,048,868	2,474,817	1,469,083	2,414,259	2,982,599	2,855,845	1,822,168	3,506,838	
–	–	367	4,892	–	–	34,777	551,918	14
191,299	213,780	237,904	268,636	228,893	234,663	257,016	311,128	15
1,021,450	1,034,303	1,230,888	1,376,004	1,429,054	1,308,801	1,467,728	1,766,465	
114,214	56,663	32,023	69,296	133,838	95,144	136,033	187,498	16
1,347,916	761,720	430,631	823,158	1,562,942	1,192,058	1,626,399	2,053,015	
81,040	1,083	4,240	19,116	276,392	154,857	58,842	132,654	17
36,099	18,992	47,566	23,537	386,281	454,824	425,288	486,898	18
6,040	80	5	10	388,667	323,425	282,063	143,700	19
8,934	290	29	8	728,141	497,620	425,098	161,516	
6	20	245	446	166,933	112,162	233,461	194,707	20
–	–	312	950	–	–	173,726	267,012	21
4,894,415	**4,627,071**	**3,451,081**	**4,922,004**	**9,711,720**	**8,940,046**	**7,665,563**	**10,904,073**	
40,007	61,127	33,136	37,285	122,709	139,022	166,831	162,442	22
776,324	1,220,517	578,946	563,759	2,103,205	2,220,260	2,290,154	1,997,638	
146,865	151,875	133,161	174,950	165,675	165,265	159,023	205,867	23
2,450,464	2,431,387	2,061,875	2,532,358	2,752,093	2,635,262	2,457,277	2,986,858	
634,734	663,386	764,262	770,227	637,151	666,928	771,123	770,668	24
2,965,351	2,877,467	3,293,128	3,324,007	2,977,957	2,911,350	3,318,575	3,327,773	
795,436	890,196	1,029,219	726,961	1,527,493	1,573,998	1,333,926	1,030,089	25
598,494	726,959	896,763	684,297	1,067,341	1,239,888	1,125,642	851,598	
7,100,814	7,585,140	7,127,084	7,320,347	9,253,496	9,416,642	9,581,355	9,506,796	

12.—Principal Exports of Canadian Produce from Canada to United

No.	Items.	United Kingdom.			
		1925.	1926.	1927.	1928.[1]
	IV. Wood, Wood Products and Paper—con.				
	Wood, unmanufactured—concluded.				
	Saw and planing mill products—				
	Planks and boards—				
1	Cedar.....M ft.	–	–	63	11
	$	–	–	4,450	597
2	Fir.....M ft.	13,766	12,009	21,791	25,289
	$	404,112	406,947	592,883	698,146
3	Hemlock.....M ft.	158	522	145	245
	$	5,022	12,208	3,662	7,166
4	Pine.....M ft.	49,558	43,931	36,575	30,843
	$	3,766,491	3,212,305	2,654,903	2,047,203
5	Spruce.....M ft.	134,635	145,957	77,557	124,465
	$	3,615,954	3,980,905	2,159,218	3,296,126
	Total planks and boards[2].....M ft.	235,248	239,336	164,745	217,737
	$	9,224,366	9,109,876	6,573,422	7,460,920
	Timber, square—				
6	Douglas fir.....M ft.	20,352	11,829	5,472	5,333
	$	519,918	269,873	135,840	132,966
7	Other.....M ft.	4,621	7,731	2,952	3,406
	$	264,167	688,209	263,954	291,274
8	Laths..... M	–	169	36	37
	$	–	763	96	135
9	Pickets..... M	278	696	10	–
	$	6,634	10,772	400	–
10	Shingles..... M	293	249	293	420
	$	1,656	1,258	1,120	1,692
11	Shooks..... $	78,748	52,542	58,853	53,563
	Total saw and planing mill products[2].... $	10,208,216	10,442,761	7,196,880	8,157,369
12	Pulpwood.....cord	–	–	–	–
	$	–	–	–	–
13	Spoolwood..... $	566,549	816,589	580,118	328,617
	Total wood, unmanufactured[2]..... $	11,105,145	11,597,947	8,065,759	8,627,016
	Wood, manufactured—				
14	Cooperage..... $	5,324	1,576	8,536	600
	Wood pulp—				
15	Sulphate (kraft).....cwt.	–	–	–	–
	$	–	–	–	–
16	Sulphite, bleached..... cwt.	6,759	9,137	34,074	74,449
	$	32,656	45,928	160,860	343,271
17	Sulphite, unbleached..... cwt.	5,111	52,342	16,828	–
	$	13,825	122,039	43,331	–
18	Mechanical..... cwt.	853,150	1,664,975	1,918,266	1,633,806
	$	1,244,396	2,829,921	3,222,346	2,740,552
	Total wood pulp[2]..... cwt.	865,020	1,726,454	1,999,168	1,708,255
	$	1,290,877	2,997,888	3,426,537	3,092,823
19	Doors, sashes, blinds..... $	32,396	22,127	19,859	12,999
20	Furniture..... $	94,501	94,459	88,617	33,135
21	Match splints..... $	434,456	483,687	372,360	295,360
	Total wood, manufactured[2]..... $	2,250,771	4,106,873	4,487,821	3,916,156
	Total wood and wood products[2]..... $	13,355,916	15,704,820	12,553,580	12,543,172
	Paper, n.o.p.—				
22	Paper board..... $	788,148	936,551	920,768	839,509
23	Book paper..... cwt.	915	2,893	6,662	2,702
	$	9,984	28,895	49,152	28,316
24	Newsprint..... cwt.	177,335	335,072	405,697	898,103
	$	540,709	1,195,915	1,314,642	2,889,786
25	Wrapping paper..... cwt.	160,547	129,487	79,472	54,114
	$	1,269,617	917,747	462,071	272,864
26	Bond and writing paper..... cwt.	1,412	11	23	177
	$	16,003	122	557	1,351

[1] Subject to revision. [2] Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
–	–	56,020	52,191	–	–	60,598	53,213	1
–	–	2,451,401	2,124,807	–	–	2,639,997	2,169,740	
327,757	382,881	373,924	366,134	412,545	490,300	532,913	559,571	2
6,515,977	7,879,955	7,127,338	6,813,460	8,738,197	10,483,625	10,731,770	11,168,450	
82,781	69,740	80,171	81,886	93,141	82,697	98,242	108,532	3
1,699,780	1,504,281	1,503,876	1,454,374	1,955,975	1,814,785	1,891,820	2,042,315	
352,048	409,000	394,423	332,929	414,405	464,831	442,348	376,672	4
12,436,005	13,405,644	12,723,862	10,598,565	16,826,112	17,242,899	15,857,685	13,164,201	
736,987	807,599	737,791	659,207	908,236	984,462	843,408	801,640	5
20,819,294	22,391,209	19,976,413	17,691,496	25,550,888	27,303,950	22,953,865	21,547,519	
1,633,051	1,834,007	1,725,628	1,565,653	2,002,247	2,229,868	2,090,429	2,010,623	
48,140,607	53,457,655	48,252,034	42,519,884	61,356,009	66,824,346	59,795,171	55,397,621	
15,981	12,671	13,001	9,118	84,348	79,522	113,600	134,607	6
327,217	257,140	246,181	180,360	1,940,262	1,681,465	2,335,683	2,779,549	
8,965	2,295	1,295	1,435	16,661	10,438	5,002	8,932	7
201,153	86,636	42,308	39,460	536,329	794,471	324,599	427,286	
1,657,962	1,991,556	1,722,729	1,353,891	1,668,423	2,009,539	1,738,263	1,362,339	8
9,584,832	10,512,968	8,919,746	6,469,913	9,673,240	10,586,131	8,997,095	6,499,328	
46,554	65,971	51,402	53,134	47,491	67,021	51,797	53,597	9
453,134	621,586	502,054	485,431	471,513	640,340	510,919	495,391	
2,557,898	2,403,657	2,434,242	2,035,510	2,595,504	2,427,132	2,470,453	2,071,295	10
9,322,854	9,466,849	8,324,387	6,712,637	9,423,184	9,540,674	8,415,970	6,820,246	
14,946	26,807	41,174	20,813	726,306	783,749	729,413	671,069	11
68,313,291	74,715,084	66,561,127	56,661,352	84,659,662	91,703,594	81,629,201	73,628,619	
1,398,237	1,310,760	1,536,485	1,501,612	1,398,237	1,310,760	1,536,485	1,501,612	12
14,137,774	13,056,057	15,400,343	15,182,842	14,137,774	13,056,057	15,400,343	15,182,842	
8,580	13,379	13,990	2,726	575,129	829,968	594,108	331,343	13
90,011,017	95,895,466	89,749,769	79,883,562	109,093,950	115,530,322	107,855,430	99,370,516	
27,738	31,472	51,947	76,443	116,903	165,203	153,418	206,889	14
2,748,554	3,111,667	3,311,473	3,440,720	2,748,554	3,112,762	3,311,473	3,442,484	15
8,274,645	9,533,887	10,249,691	10,248,339	8,274,645	9,536,898	10,249,691	10,253,803	
3,042,171	3,161,639	3,319,315	3,594,330	3,410,407	3,769,876	4,218,175	4,858,139	16
11,531,111	12,241,204	12,777,333	13,582,187	12,608,449	14,564,915	16,474,469	18,608,237	
4,181,717	4,927,000	4,100,046	3,345,966	4,739,768	5,502,677	4,566,432	3,973,236	17
10,804,378	13,283,909	11,453,526	8,716,771	12,417,376	14,902,166	12,826,530	10,381,466	
4,588,120	5,611,083	4,673,109	3,472,920	5,506,484	7,461,066	6,863,271	5,106,726	18
6,918,111	7,795,431	6,660,371	4,780,423	8,264,771	10,905,891	10,337,049	7,529,975	
14,560,562	16,811,389	15,403,943	14,359,756	16,405,213	19,846,381	18,959,351	17,886,405	
37,528,245	42,854,431	41,140,921	37,815,474	41,565,241	49,909,870	49,887,739	47,261,235	
191	956	4,508	1,509	198,417	184,082	147,936	75,848	19
34,359	25,550	40,939	28,822	360,906	405,270	405,361	296,778	20
–	–	180	170	519,709	558,288	466,248	385,685	21
37,786,094	43,071,198	41,415,162	38,088,347	43,543,234	52,073,249	52,014,768	49,048,356	
27,797,111	138,966,664	131,164,931	117,971,909	152,637,184	167,603,571	159,870,198	148,418,872	
2,173,310	1,941,576	1,453,362	1,427,607	3,327,966	3,273,681	2,733,747	2,657,186	22
–	549	61	45	22,604	50,951	63,465	104,481	23
–	2,605	451	1,215	199,264	462,473	541,098	718,723	
24,305,341	27,826,169	33,115,742	36,411,593	25,027,889	29,537,336	35,437,629	39,417,522	24
89,121,407	96,072,497	108,364,290	118,404,904	91,808,330	102,238,568	116,452,158	128,507,101	
4,916	1,506	2,676	128	442,304	431,745	351,472	294,699	25
16,510	6,956	13,471	966	3,234,560	2,877,770	2,051,390	1,642,972	
–	–	–	19	19,541	12,447	18,850	13,036	26
–	–	–	707	198,635	98,197	142,553	107,918	

12.—Principal Exports of Canadian Produce from Canada to United

No.	Items.		United Kingdom.			
			1925.	1926.	1927.	1928.[1]
	IV. Wood, Wood Products and Paper—con					
	Paper, n.o.p.—concluded.					
1	Wall paper	roll	776,521	919,894	1,539,785	1,365,206
		$	105,436	142,613	236,569	232,596
2	Roofing paper	$	71	3,638	79,151	119,071
3	Waste paper	cwt	–	–	–	–
		$	–	–	–	–
	Total paper, n.o.p.[2]	$	2,807,180	3,292,482	3,162,543	4,486,042
	Books and printed matter—					
4	Books	$	20,947	16,496	22,117	24,326
5	Newspapers, etc	$	174,475	132,933	93,932	116,219
6	Photographs	$	1,479	1,107	3,731	1,552
	Total Wood, Wood Products and Paper[2]	$	**16,359,997**	**19,147,838**	**15,835,904**	**17,171,311**
	V. Iron and its Products.					
7	Ore, including chromite	ton	2	–	158	–
		$	17	–	1,580	–
	Pigs, ingots, blooms and billets—					
8	Pig iron	ton	–	–	–	–
		$	–	–	–	–
9	Billets, ingots and blooms	ton	–	585	–	–
		$	–	17,010	–	–
10	Ferro-manganese and ferro-silicon	ton	–	–	–	–
		$	–	–	–	–
	Total pigs, ingots, blooms and billets	$	17	17,010	–	–
11	Scrap iron	ton	747	731	760	578
		$	11,472	12,894	16,475	10,605
12	Castings	$	–	–	2,815	23,828
13	Forgings	$	76	135,069	45,103	2,004
	Rolling mill products—					
14	Bars and rods	ton	193	1,107	5,657	1,525
		$	8,988	49,456	207,262	61,240
15	Plates and sheets	ton	2	–	–	–
		$	140	–	–	–
16	Rails	ton	–	–	–	1
		$	–	–	–	62
17	Structural steel	ton	7	–	–	–
		$	2,500	–	–	–
	Total rolling mill products	$	11,628	49,456	207,262	61,302
18	Pipe and tubing	$	195,091	294,674	315,173	119,603
	Wire—					
19	Barbed	cwt	–	–	–	–
		$	–	–	–	–
20	Woven fencing	$	81,238	79,531	68,342	51,600
21	Other	$	173,108	130,448	157,031	163,484
	Engines and boilers—					
22	Locomotives and parts	No.	–	–	–	–
		$	–	–	–	–
23	Other	$	10,464	22,663	7,127	8,157
	Farm implements and machinery—					
24	Cream separators	$	25,331	12,371	5,591	11,701
25	Harvesters	No.	94	1,191	1,580	758
		$	16,413	196,697	259,619	128,148
26	Mowers	No.	171	1,841	1,319	1,831
		$	10,699	117,071	83,178	111,645
27	Reapers	No.	–	5	10	10
		$	–	487	973	973
28	Cultivators	No	30	472	145	351
		$	1,343	8,520	6,968	9,521
29	Drills	No.	22	231	268	239
		$	2,613	23,112	27,903	21,839
30	Harrows	$	9,679	14,739	24,463	10,412
31	Ploughs	$	31,599	45,681	47,207	39,685

[1]Subject to revision. [2]Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
92,689	87,065	116,949	126,528	2,909,139	2,854,269	3,460,771	3,551,385	1
18,729	18,345	29,852	25,877	385,161	406,802	509,335	511,748	
5,460	658	2,724	1,216	160,607	147,259	198,219	227,536	2
395,312	294,863	314,257	357,424	395,312	294,863	314,804	357,815	3
373,732	290,036	289,738	327,342	373,732	290,036	290,267	327,698	
91,725,993	98,410,237	110,189,113	120,209,438	99,941,910	110,104,929	123,222,734	134,985,777	
124,399	134,410	132,273	114,871	174,636	194,879	199,481	167,195	4
398,949	389,211	527,069	686,035	843,774	763,365	817,632	964,768	5
10,536	5,588	6,215	3,752	12,520	8,216	10,222	6,784	6
220,056,988	**237,906,110**	**242,019,601**	**238,986,005**	**253,610,024**	**278,674,960**	**284,120,267**	**284,543,296**	
5,834	3,562	576	2,475	5,836	3,562	734	2,475	7
26,174	16,622	5,481	12,125	26,191	16,622	7,061	12,125	
12,536	4,163	2,161	481	12,817	4,274	2,197	516	8
243,802	80,352	44,617	9,338	248,768	82,269	45,264	9,949	
–	–	–	–	1,622	960	1,254	1,420	9
–	–	–	–	54,208	26,053	31,092	33,959	
26,449	30,603	59,202	40,308	26,449	30,820	59,437	40,434	10
1,015,382	2,042,397	3,335,248	2,725,573	1,015,382	2,058,850	3,351,423	2,738,315	
1,259,184	2,122,749	3,379,865	2,734,911	1,318,358	2,167,172	3,427,779	2,782,223	
63,951	61,018	63,538	56,241	65,320	66,313	68,395	76,147	11
741,578	668,694	607,335	547,342	763,455	743,563	667,583	783,403	
157,175	125,860	130,831	83,826	191,345	146,668	114,119	131,786	12
13,694	8,108	19,543	4,441	14,831	143,286	64,646	24,613	13
1,547	1,720	3,363	2,040	8,140	16,526	28,053	15,537	14
75,885	81,619	131,827	101,448	416,350	703,154	1,054,980	608,124	
19	7	24	98	129	103	214	176	15
3,185	321	3,252	5,416	12,790	8,891	17,205	12,232	
3,724	2,819	2,472	1,762	6,814	4,583	13,712	30,985	16
91,888	67,516	53,688	49,103	188,637	114,076	513,434	1,047,744	
42	408	34	47	2,069	10,931	9,743	2,286	17
3,056	33,934	3,282	2,686	206,032	799,699	745,550	225,607	
174,014	183,390	192,049	158,652	823,809	1,625,820	2,331,169	1,893,707	
12,010	141,693	625,329	666,741	1,208,061	1,482,333	2,064,401	1,754,597	18
28	–	–	–	35,391	25,365	24,774	27,254	19
134	–	–	–	132,067	94,000	83,299	92,876	
282	3,860	864	923	172,619	169,329	162,754	173,081	20
3,289	2,275	12,465	2,429	850,060	675,892	648,544	609,433	21
1	–	1	2	1	–	2	3	22
13,483	4,365	32,449	45,292	21,021	13,633	66,041	60,873	
10,853	88,896	7,117	11,283	81,713	287,938	238,297	146,816	23
60,765	63,494	56,865	40,672	108,698	101,685	100,092	77,197	24
19	41	15	33	6,617	12,305	17,285	14,002	25
2,689	6,348	2,280	4,631	1,220,186	2,043,445	2,939,985	2,363,798	
204	235	255	220	14,864	27,307	26,763	18,664	26
11,854	12,926	15,133	12,123	957,695	1,704,969	1,566,584	1,074,426	
–	–	–	–	1,161	2,505	1,488	1,462	27
–	–	–	–	105,893	241,526	143,705	13,312	
1,152	2,647	4,627	6,839	9,123	10,128	13,963	14,232	28
112,968	258,696	429,265	610,630	579,085	449,737	823,732	901,147	
7	334	26	119	4,903	6,413	6,423	6,164	29
706	51,156	3,041	17,399	749,938	968,391	1,019,701	1,024,222	
59,013	101,789	84,111	171,969	285,757	366,326	313,283	355,150	30
184,532	267,669	188,236	227,402	1,630,908	2,858,266	2,226,255	2,151,278	31

12.—Principal Exports of Canadian Produce from Canada to United

No.	Items.		United Kingdom.			
			1925.	1926.	1927.	1928.[1]
	V. Iron and its Products—concluded.					
	Farm implements and machinery—concluded.					
1	Threshing machines	$	–	876	–	2,538
2	Spades and shovels	$	53	30	140	–
3	Parts	$	165,213	153,564	130,930	197,468
	Total farm implements and machinery[2]	$	346,328	679,955	673,945	638,584
	Hardware and cutlery—					
4	Razors	$	332,752	422,082	169,163	53,825
5	Nails, wire	cwt.	1,987	1,546	1,185	788
		$	9,062	6,009	4,305	2,916
6	Nails, other	cwt.	874	674	633	493
		$	9,380	8,194	7,613	5,386
7	Needles and pins	$	133,217	183,043	197,183	324,337
8	Bolts and nuts	cwt.	5,005	6,921	6,955	1,123
		$	32,498	40,319	36,959	6,573
	Machinery—					
9	Electric vacuum cleaners	No.	23,318	22,959	20,700	25,253
		$	835,613	867,281	910,406	1,038,732
10	Sewing machines	$	2,736	220	2,127	400
11	Adding machines	No.	70	1	301	1,601
		$	6,125	240	21,850	123,399
12	Typewriters	No.	757	20	2	3
		$	97,149	2,145	75	500
13	Metal-working	$	21,040	249	3,766	4,535
14	Wood-working	$	2,100	–	5,630	8,013
	Total machinery[2]	$	1,218,406	1,069,056	1,106,185	1,350,235
15	Tools, hand or machine	$	30,858	21,103	22,144	46,205
	Vehicles—					
	Automobiles, freight—					
16	One ton or less	No.	1,334	2,501	96	288
		$	349,045	413,369	27,120	72,875
17	Over one ton	No.	7	14	5	5
		$	16,841	24,616	8,894	5,700
	Automobiles, passenger—					
18	$500 or less	No.	1,880	17	1,298	1,162
		$	620,260	5,510	424,703	326,009
19	$500 to $1,000	No.	1,121	2,480	2,878	3,326
		$	933,578	2,193,800	2,123,054	2,418,514
20	Over $1,000	No.	750	989	1,073	1,501
		$	1,102,926	1,296,955	1,320,408	1,894,553
21	Automobile parts	$	350,738	419,220	426,758	84,196
22	Railway cars and parts	No.	–	–	–	–
		$	–	1,725	–	500
23	Tractors and parts	No.	–	–	–	–
		$	–	–	–	–
	Total vehicles[2]	$	3,379,270	4,360,735	4,332,934	4,803,739
24	Chains	$	43,996	38,620	57,988	27,297
25	Stoves	$	11,123	11,985	29,864	14,103
	Total Iron and its Products[2]	$	**6,689,169**	**8,307,441**	**8,123,365**	**8,195,972**
	VI. Non-Ferrous Metals.					
	Aluminium—					
26	Scrap	cwt.	–	–	–	311
		$	–	–	–	3,187
27	Bars, blocks, etc	cwt.	45,752	45,949	3,748	39,559
		$	1,030,616	1,147,825	91,692	845,510
28	Manufactures	$	36,216	45,926	80,361	37,568
	Brass—					
29	Old and scrap	cwt.	8,804	3,255	1,959	3,490
		$	72,824	34,813	21,686	33,250
30	Valves	$	124,950	28,036	110,303	132,863

[1]Subject to revision. [2]Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
340,506	654,740	2,120,270	1,082,659	2,606,584	1,572,477	4,283,799	3,549,380	1
3,722	1,635	416	5,207	230,189	212,062	232,591	308,025	2
480,407	1,037,298	1,269,327	1,265,929	1,793,059	2,277,594	2,988,927	3,051,059	3
1,365,175	2,535,992	4,204,581	3,522,603	11,342,712	13,628,341	17,412,947	15,643,381	
–	88	426	31	1,267,676	1,704,529	2,326,610	1,774,322	4
1,693	1,278	2,145	2,354	61,217	71,486	75,914	69,127	5
6,902	4,968	7,559	8,121	246,803	263,498	267,485	245,492	
413	701	31	2	26,948	35,910	24,723	17,639	6
2,830	6,226	341	14	156,188	210,543	156,400	135,025	
126	57	2,851	3,753	174,301	321,362	273,059	395,472	7
148	4,236	1,580	831	12,480	17,017	15,442	8,929	8
1,210	27,039	10,165	5,240	80,387	104,994	92,252	57,271	
1	–	4	15	27,916	26,668	28,892	35,185	9
13	–	784	906	1,014,429	1,005,713	1,228,326	1,415,806	
6,493	9,691	13,233	4,431	2,149,436	3,021,741	1,997,011	3,464,098	10
82	5	3	18	1,369	747	1,981	2,307	11
9,904	1,080	255	925	278,257	201,914	280,960	236,323	
37	39	155	393	814	71	380	930	12
1,978	2,281	6,587	15,779	100,416	5,258	15,008	39,333	
27,609	59,771	16,499	6,385	168,256	310,721	235,513	262,558	13
11,322	6,605	3,897	1,269	73,475	70,046	93,952	37,677	14
417,916	507,063	456,322	304,731	5,043,587	5,699,914	4,755,925	6,166,574	
20,989	21,046	17,068	16,686	303,588	299,438	264,467	296,790	15
5	14	8	2	11,760	19,210	20,405	15,079	16
1,175	5,525	2,094	800	3,981,840	6,258,464	6,870,927	5,569,890	
4	–	1	2	13	14	6	12	17
16,390	–	5,892	5,457	36,579	24,616	14,786	22,068	
114	111	154	206	32,184	48,264	38,019	17,683	18
22,834	21,195	32,527	40,447	11,212,913	16,953,925	13,283,406	7,009,647	
11	11	13	34	8,865	9,155	9,963	9,566	19
8,275	7,650	9,609	25,482	6,665,314	7,146,151	7,475,481	6,849,243	
7	9	8	9	3,268	4,080	3,322	4,398	20
10,594	16,675	12,636	14,790	4,133,743	5,334,282	4,106,652	5,389,827	
119,339	632,848	293,741	69,095	4,911,736	7,121,747	4,665,369	2,566,960	21
31	9	–	–	40	17	2	169	22
91,305	11,371	38,371	7,980	161,311	109,265	82,333	269,444	
10	7	7	6	10	8	7	9	23
182,873	85,479	122,418	136,633	182,915	85,629	122,678	141,059	
455,850	792,869	524,017	313,594	31,401,839	43,180,025	36,816,445	27,919,341	
2,921	1,390	1,139	248	120,402	115,149	151,842	149,256	24
44,780	43,174	42,930	39,906	128,775	123,089	141,619	114,482	25
5,063,148	7,582,833	10,680,762	8,831,287	57,405,940	74,735,077	74,284,824	62,753,934	
–	–	6,082	3,674	–	–	6,082	4,950	26
–	–	85,225	44,216	–	–	85,225	60,791	
71,190	141,017	191,860	396,257	226,530	245,683	238,068	532,315	27
1,582,973	3,382,964	4,207,101	7,918,826	5,135,366	6,006,390	5,347,969	10,822,174	
73,528	101,308	564,418	21,742	775,181	670,950	1,150,025	612,836	28
66,227	63,359	43,714	56,057	83,132	80,488	61,436	73,862	29
491,684	501,992	351,978	428,435	650,609	677,440	540,505	595,464	
1,061	11,169	3,655	3,994	198,366	128,912	203,348	223,588	30

12.—Principal Exports of Canadian Product from Canada to United

No.	Items.		United Kingdom.			
			1925.	1926.	1927.	1928.[1]
	VI. Non-Ferrous Metals—concluded.					
	Copper—					
1	Fine, in ore, matte, regulus	cwt.	139,363	150,230	160,759	235,679
		$	1,046,513	1,129,985	1,207,227	1,770,865
2	Blister	cwt	–	–	–	–
		$	–	–	–	–
3	Old and scrap	cwt.	863	292	234	768
		$	11,028	3,565	2,580	9,714
4	Wire, insulated	$	36,376	51,931	22,667	7,286
	Total copper[2]	$	1,154,815	1,210,446	1,260,669	1,819,912
	Lead—					
5	In ore	cwt.	195,320	–	–	–
		$	1,482,754	–	–	–
6	Pig	cwt.	677,079	868,958	950,335	970,257
		$	4,703,392	6,017,173	5,391,431	4,255,915
	Nickel—					
7	In ore	cwt	217,388	237,564	223,982	316,078
		$	3,405,564	3,920,449	3,448,973	4,738,004
8	Nickel oxide	cwt	–	–	–	2,566
		$	–	–	–	65,817
9	Fine	cwt.	4,430	2,962	19,323	27,995
		$	103,993	98,168	692,540	980,751
	Precious metals—					
10	Gold-bearing quartz, dust, etc	$	60,651	11,360	17,981	1,104
11	Silver in ore, concentrates, etc	oz.	293,592	707	67,877	–
		$	190,005	496	33,941	–
12	Silver bullion	oz.	4,887,811	1,236,827	414,368	24,903
		$	3,266,560	826,892	264,287	14,194
	Total precious metals[2]	$	3,520,699	845,706	345,074	73,033
	Zinc—					
13	Ore	ton	–	–	–	–
		$	–	–	–	–
14	Spelter	cwt.	110,902	203,591	326,051	214,422
		$	680,407	1,528,063	2,155,510	1,176,600
15	Scrap, dross and ashes	cwt	–	–	7,579	12,285
		$	–	–	31,791	40,942
	Miscellaneous—					
16	Electric apparatus	$	215,200	109,282	126,194	292,402
17	Cobalt ore	ton	–	–	–	–
		$	–	–	–	–
18	Cobalt, metallic	lb.	46,959	96,568	27,506	138,799
		$	102,781	234,981	65,263	300,412
	Total Non-Ferrous Metals[2]	$	**16,868,927**	**15,605,732**	**14,174,289**	**15,696,472**
	VII. Non-Metallic Minerals.					
19	Asbestos	ton	7,403	6,266	8,751	11,064
		$	453,790	551,254	650,069	767,465
20	Asbestos sand	ton	3,352	1,256	2,266	2,397
		$	59,140	23,229	52,093	55,407
21	Asbestos mfrs	$	1,007	302	7,038	5,204
22	Porcelain insulators	$	2,253	1,503	154	4,068
23	Other clay and products	$	2,493	6,163	2,411	1,904
24	Coal (incl. lignite)	ton	31,308	13,251	134,727	29,261
		$	230,336	96,619	917,678	216,345
	Coal products—					
25	Cinders	$	–	–	–	–
26	Coke	ton	–	–	–	–
		$	–	–	–	–
27	Tar	gal.	1,800	–	44,910	1,236,876
		$	158	–	6,205	128,667
28	Glass and glassware	$	90,073	86,899	53,563	33,316
29	Graphite	cwt.	26	264	9	213
		$	243	1,378	275	2,212
30	Mica splittings	cwt.	304	105	231	150
		$	23,912	7,635	14,830	11,025
31	Other mica	$	10,356	8,307	231	3,300

[1]Subject to revision. [2]Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
394,377	460,676	507,848	513,776	533,740	610,906	668,607	749,455	1
4,801,335	5,907,221	6,627,916	5,312,860	5,847,848	7,037,206	7,835,143	7,083,725	
436,616	515,500	468,606	574,448	436,616	515,500	468,606	577,790	2
5,621,645	6,908,431	6,018,914	7,377,863	5,621,645	6,908,431	6,018,914	7,427,986	
41,447	42,187	52,580	70,859	42,755	45,015	54,460	80,183	3
474,482	471,417	517,403	738,277	492,186	506,702	540,515	846,713	
2,159	3,691	1,954	3,085	584,033	380,246	387,573	139,475	4
10,982,622	13,295,650	13,168,010	13,433,073	12,722,677	14,943,053	14,917,456	15,592,682	
182,452	58,599	86,271	49,796	378,772	122,417	136,458	135,551	5
973,676	387,422	491,994	299,316	2,456,430	635,852	796,524	871,543	
12,067	330	4,120	8,722	1,148,329	1,856,175	2,115,627	2,416,093	6
105,589	1,097	25,578	47,412	7,911,700	13,292,720	12,667,959	11,009,119	
104,459	117,474	94,223	51,254	385,443	403,528	365,689	367,332	7
947,923	1,049,086	1,011,746	765,741	5,670,848	6,553,113	6,037,990	5,503,745	
–	–	–	11,605	–	–	–	79,371	8
–	–	–	251,202	–	–	–	2,472,589	
196,909	293,554	205,874	254,652	230,054	307,286	258,758	335,582	9
3,724,791	5,792,265	4,985,027	6,115,407	4,503,397	6,276,131	6,883,200	9,049,970	
28,732,682	25,956,734	6,836,361	8,990,186	28,793,333	25,968,094	6,854,342	9,035,734	10
4,584,335	4,222,485	5,923,677	5,366,070	4,909,072	4,261,282	6,034,514	5,463,309	11
2,902,528	2,648,644	3,469,224	2,851,367	3,112,591	2,674,483	3,528,065	2,905,130	
6,230,974	6,060,237	3,826,875	2,891,265	13,675,661	14,121,133	15,778,443	15,906,738	12
4,227,154	4,173,538	2,319,039	1,647,357	9,234,991	9,691,093	9,448,269	8,956,407	
36,254,702	33,242,707	12,976,253	13,912,332	41,536,736	38,804,419	20,211,170	21,378,805	
28,447	126	8,839	–	80,930	30,992	41,929	25,224	13
1,257,852	5,836	225,971	–	2,444,056	956,480	1,393,368	862,295	
–	–	–	80	439,674	627,595	984,827	1,237,522	14
–	–	–	760	2,900,004	4,876,525	6,896,054	7,085,422	
–	–	35,997	40,379	–	–	43,576	59,593	15
–	–	123,347	109,672	–	–	155,138	170,982	
65,350	106,445	107,975	98,342	1,581,511	1,405,490	1,698,411	1,848,968	16
–	–	97	–	–	–	479	1,027	17
–	–	9,713	–	–	–	261,699	305,226	
100,759	167,421	174,814	133,669	154,508	290,738	202,320	338,526	18
224,835	361,353	298,307	262,293	342,966	660,958	363,570	704,403	
57,334,402	**58,740,061**	**39,007,020**	**44,114,499**	**90,370,788**	**97,476,270**	**80,639,197**	**90,840,441**	
70,566	96,759	88,638	74,179	108,245	139,123	138,732	129,402	19
3,852,209	5,165,997	5,184,119	4,606,526	6,413,405	8,180,988	8,692,037	8,549,360	
98,699	125,632	121,232	125,600	104,692	130,529	127,214	134,725	20
1,221,511	1,653,258	1,794,343	1,928,149	1,329,334	1,739,912	1,922,657	2,127,805	
32,922	32,102	19,702	17,241	47,349	56,504	59,431	48,162	21
183	585	2,059	7,060	347,051	89,197	109,081	180,646	22
111,154	75,800	85,727	99,174	177,171	117,006	106,437	136,753	23
273,055	450,285	449,358	469,135	719,502	753,842	1,288,511	914,644	24
1,565,651	2,136,975	2,146,404	2,114,927	4,388,766	4,083,713	7,187,000	4,745,856	
11,750	14,703	24,418	14,087	11,750	14,703	24,418	14,087	25
25,483	43,879	88,165	66,164	25,967	44,540	88,336	67,323	26
434,360	625,649	990,645	722,274	438,433	630,264	992,233	730,823	
455,430	460,235	531,633	746,787	2,993,029	1,730,647	4,316,758	3,797,990	27
47,544	50,776	45,590	52,991	243,465	119,491	378,874	352,247	
51,091	57,727	23,781	14,501	292,066	309,897	206,180	107,686	28
27,525	52,627	42,855	36,303	28,218	54,396	42,867	36,525	29
69,812	150,444	152,268	98,976	72,606	157,134	152,598	101,288	
4,609	5,650	5,152	2,117	4,952	5,755	5,389	2,267	30
337,033	395,522	346,973	140,259	364,860	403,157	362,271	151,284	
78,075	68,483	77,851	103,015	89,432	79,245	79,143	107,335	31

12.—Principal Exports of Canadian Produce from Canada to United

No.	Items.	United Kingdom.			
		1925.	1926.	1927.	1928.[1]
	VII. Non-Metallic Minerals –concluded.				
	Petroleum and its products—				
1	Petroleum, crude ... gal.	1,132,885	2,003,225	7,472,715	5,056,011
	$	55,026	104,021	448,363	304,420
2	Kerosene, refined ... gal.	–	1,296	–	–
	$	–	233	–	–
3	Gasolene and naphtha ... gal.	–	–	–	–
	$	–	–	–	–
4	Other oil ... gal.	3,030	1,316	4,321	6,065
	$	1,272	1,926	6,456	7,256
5	Wax ... cwt.	–	–	–	–
	$	–	–	–	–
	Stone and its products—				
6	Abrasives, artificial ... cwt.	48,510	34,484	11,485	50,563
	$	298,153	123,609	35,913	183,204
7	Grindstones ... $	–	–	–	–
8	Cement, Portland ... cwt.	–	–	–	–
	$	–	–	–	–
9	Gypsum, crude ... ton	–	–	–	–
	$	–	–	–	–
10	Lime ... cwt.	–	–	–	–
	$	–	–	–	–
11	Feldspar ... ton	6	1	20	10
	$	167	35	565	300
12	Sand and gravel ... ton	–	–	–	–
	$	–	–	–	–
13	Talc, refined ... cwt.	9,955	17,232	15,945	14,881
	$	6,383	10,169	10,003	8,626
	Total Non-Metallic Minerals[2] ... $	**1,276,405**	**1,220,494**	**2,324,119**	**1,933,969**
	VIII. Chemicals and Allied Products.				
14	Acid, acetic ... cwt.	158,215	135,204	154,836	187,847
	$	1,733,516	1,539,198	1,755,890	2,234,853
15	Acid, sulphuric ... cwt.	–	–	–	–
	$	–	–	–	–
16	Wood alcohol ... gal.	111,223	19,806	5,496	5,151
	$	91,780	16,512	4,266	3,776
17	Drugs, medicinal ... $	263,182	264,837	355,046	157,489
18	Explosives ... $	63	–	–	–
	Fertilizers—				
19	Ammonium sulphate ... cwt.	–	–	–	–
	$	–	–	–	–
20	Cyanamid ... cwt.	5	–	–	–
	$	15	–	–	–
21	Paints, pigments and varnishes ... $	186,623	133,980	134,001	144,292
22	Soap, toilet ... lb.	3,454,514	3,102,093	3,667,414	6,437,259
	$	488,312	460,841	663,990	878,387
23	Soap, n.o.p. ... lb.	5,585	–	–	108
	$	262	–	–	21
	Inorganic chemicals, n.o.p.—				
24	Arsenic, n.o.p. ... cwt.	–	–	–	–
	$	–	–	–	–
25	Acetate of lime ... cwt.	11,594	–	1,032	2,462
	$	24,251	–	2,309	6,607
26	Calcium carbide ... cwt.	–	–	–	455
	$	–	–	–	2,224
27	Soda and sodium compounds ... cwt.	467	2	–	–
	$	1,402	16	–	–
28	Cobalt oxide and salts ... lb.	230,966	201,777	114,223	202,080
	$	391,915	313,182	158,324	289,923
	Total inorganic chemicals, n.o.p.[2] ... $	418,688	314,598	163,833	301,196
29	Creosote oil ... gal.	–	–	–	–
	$	–	–	–	–
30	Glycerine ... cwt.	–	–	–	–
	$	–	–	–	–
	Total Chemicals and Allied Products[2] $	**3,805,628**	**3,318,614**	**3,567,256**	**4,234,278**

[1]Subject to revision. [2]Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
20,517,197	4,604,173	18,044,939	10,947,648	21,836,577	6,651,098	25,674,282	16,291,088	1
587,160	205,430	673,817	482,006	663,072	314,864	1,135,422	813,413	
2,703	49,534	255,823	530,099	1,569,932	1,481,708	1,518,820	2,118,861	2
579	5,122	22,070	56,819	164,649	157,247	191,744	213,873	
72,344	1,014,523	1,549,575	232,858	1,438,786	2,383,082	3,278,689	3,118,503	3
21,204	242,953	285,332	50,156	263,158	520,505	629,751	524,348	
549,890	1,400,676	584,068	54,449	717,123	1,550,337	725,197	258,108	4
89,288	234,213	95,711	11,917	163,584	299,970	156,714	87,028	
30,447	9,417	11,301	1,724	30,479	10,280	11,481	1,931	5
148,818	55,505	66,657	10,105	149,045	59,839	67,871	11,524	
731,750	943,310	991,997	965,275	794,250	983,699	1,003,392	1,046,540	6
2,247,015	2,802,582	2,641,744	2,505,348	2,630,650	2,949,831	2,677,657	2,820,811	
53,498	60,476	68,339	37,361	53,620	60,637	84,990	37,763	7
193,537	2,643,985	273,595	82,860	519,328	3,491,875	1,022,819	900,202	8
84,361	1,180,841	102,018	47,288	200,859	1,498,353	370,935	310,730	
461,016	547,491	663,747	633,723	461,016	547,491	663,747	633,723	9
737,338	882,341	1,064,205	1,041,824	737,338	882,341	1,064,205	1,041,824	
344,922	319,309	364,575	401,283	358,391	336,036	378,529	411,055	10
336,525	306,528	331,115	350,756	346,717	322,659	341,660	358,394	
35,432	31,872	30,835	21,134	35,479	31,906	30,885	31,174	11
253,832	237,337	231,385	250,854	255,079	238,197	232,860	251,994	
1,035,079	868,624	906,928	639,962	1,035,079	868,639	907,084	639,962	12
209,028	202,079	276,651	176,404	209,028	202,094	276,864	176,404	
162,327	196,422	190,432	192,809	175,436	216,157	212,632	214,137	13
97,724	115,212	110,185	114,073	106,005	126,984	124,650	126,305	
12,943,809	**17,244,986**	**17,251,325**	**15,569,528**	**20,728,986**	**24,568,845**	**28,509,838**	**25,280,805**	
19,706	30,302	86,118	109,448	179,362	170,173	245,016	302,600	14
213,207	270,030	564,551	837,713	1,963,934	1,864,474	2,365,221	3,137,205	
137,178	486,226	475,784	323,571	137,277	486,485	475,856	323,599	15
116,232	300,203	267,117	179,629	116,608	300,926	267,338	179,732	
–	–	–	96	171,585	101,213	34,197	48,390	16
–	–	–	91	150,456	91,499	32,488	48,882	
11,913	11,135	12,594	12,934	526,024	501,923	627,061	449,878	17
483	1,206	692	985	280,547	155,688	121,250	175,096	18
66,525	48,986	19,208	51,419	216,941	338,844	326,958	207,486	19
160,147	137,310	41,876	105,877	548,891	877,691	766,688	657,884	
1,461,301	1,825,731	1,621,597	2,376,463	1,488,309	1,842,543	1,709,638	2,412,592	20
3,389,404	4,374,717	3,621,415	4,644,427	3,460,845	4,419,110	3,821,507	4,726,118	
39,501	43,244	53,973	60,047	473,159	491,184	499,691	420,197	21
365	1,799	4,708	158	3,875,095	3,711,640	4,087,906	6,836,546	22
46	291	1,070	31	557,354	572,589	750,953	947,980	
–	43,128	30,260	1,044	440,665	355,668	479,965	492,861	23
–	6,908	4,583	121	36,705	33,066	41,375	40,440	
26,431	17,640	38,091	34,611	26,431	17,640	38,091	34,611	24
206,378	72,367	127,241	113,612	206,378	72,367	127,241	113,612	
40,929	45,381	58,744	72,099	60,233	50,323	59,776	74,561	25
102,115	107,573	179,216	238,686	143,460	117,871	181,525	245,293	
161,333	185,392	175,043	21,416	310,682	403,336	408,833	244,588	26
619,058	718,511	691,010	77,869	1,199,248	1,566,407	1,507,963	837,779	
246,746	279,737	309,130	301,737	533,689	567,714	608,323	703,690	27
1,716,745	1,815,643	1,671,268	1,362,967	3,641,659	3,682,103	3,601,048	3,666,242	
246,156	273,147	107,500	147,650	600,509	554,844	261,073	395,089	28
475,406	516,129	205,464	290,985	1,119,109	991,921	447,228	673,303	
3,119,702	3,233,818	2,876,915	2,094,927	6,429,508	6,535,691	5,975,526	5,662,184	
992,728	722,223	2,234,083	3,056,443	993,758	839,995	2,234,125	3,056,660	29
146,160	116,110	370,983	527,287	146,460	143,739	370,993	527,388	
9,393	8,395	7,218	8,483	9,393	8,395	7,218	8,483	30
112,574	109,674	127,807	101,531	112,574	109,674	127,807	101,531	
7,826,676	**9,197,929**	**8,092,371**	**8,678,200**	**16,209,820**	**17,498,128**	**16,574,753**	**17,892,904**	

12.—Principal Exports of Canadian Produce from Canada to United

No.	Items.		United Kingdom. 1925.	1926.	1927.	1928.[1]
	IX. Miscellaneous Commodities.					
1	Amusement and sporting goods	$	21,641	17,243	15,645	16,924
2	Containers	$	29,247	20,486	9,119	5,269
3	Household and personal equipment	$	39,064	46,034	83,175	199,710
4	Mineral waters	$	566	141	175	–
	Musical instruments—					
5	Organs	No.	111	129	123	89
		$	10,864	13,242	11,395	9,053
6	Pianos	No.	45	111	32	32
		$	16,197	32,418	12,251	10,954
7	Other	$	32,354	63,231	26,632	29,116
	Scientific and educational equipment—					
8	Cameras	$	850,194	810,842	1,207,112	400,703
9	Films	$	1,999,294	1,852,250	2,145,526	1,341,457
10	Other	$	45,417	32,594	42,738	80,416
11	Ships and vessels	$	4,212	2,498	5,181	1,737
12	Vehicles, n.o.p.	$	–	50	178	993
13	Works of art	$	18,514	7,009	23,133	21,703
14	Cartridges	$	4,677	9,838	438	866
15	Contractors' outfits	$	–	–	7,200	–
16	Junk	cwt.	–	–	–	–
		$	–	–	–	–
17	Settlers' effects	$	511,111	487,095	405,160	370,809
	Total Miscellaneous Commodities[2]	$	**3,665,384**	**3,469,539**	**4,092,186**	**2,668,575**
	Total Exports, Canadian Produce	$	**395,843,433**	**508,237,560**	**446,876,101**	**410,700,005**

13.—Principal Imports into Canada for Consumption from United

No.	Items.		United Kingdom. 1925.	1926.	1927.	1928.[1]
	I. Agricultural and Vegetable Products.					
	A. Mainly Food.					
	Fruits—					
	Fresh—					
1	Apples	brl.	–	–	–	–
		$	–	–	–	–
2	Bananas	bunch	–	–	–	–
		$	–	–	–	–
3	Cranberries	brl.	–	–	–	–
		$	–	–	–	–
4	Grape fruit	lb.	–	–	–	–
		$	–	–	–	–
5	Grapes	lb.	367,491	552,492	288,264	421,320
		$	42,297	72,557	44,396	54,811
6	Lemons	box	–	2,630	491	2,723
		$	12,241	10,824	1,489	12,078
7	Melons	No.	–	–	–	114
		$	–	–	–	68
8	Oranges	box	–	5,428	8,629	10,805
		$	11,723	25,469	25,736	34,997
9	Peaches	lb.	–	–	–	–
		$	–	–	–	–
10	Pears	lb.	–	–	–	3,420
		$	–	–	–	978
11	Pineapples	$	–	–	–	–
12	Plums	bush.	–	–	–	–
		$	–	–	–	–
13	Strawberries	lb.	–	–	–	–
		$	–	–	–	–
	Total fresh fruits[2]	$	66,345	108,850	79,779	103,076

[1] Subject to revision. [2] Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—concluded.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
27,405	28,603	37,798	31,066	64,849	77,184	95,210	77,134	1
394,278	611,148	377,293	324,808	610,517	952,444	683,734	715,120	2
58,752	65,421	63,400	79,055	258,456	336,029	424,598	629,331	3
55,644	698	36,317	560	65,956	13,479	49,995	12,594	4
16	32	29	25	404	481	468	392	5
159,334	249,151	269,009	181,250	192,717	299,643	326,597	231,578	
70	81	72	71	554	645	821	825	6
26,294	27,983	25,580	23,985	175,436	187,343	211,896	211,656	
70,794	25,784	27,919	15,509	319,783	400,651	1,109,432	828,909	7
551	1,467	2,982	3,699	933,056	877,504	1,276,461	639,520	8
363,582	1,726,789	2,271,170	1,408,123	2,473,247	4,048,624	5,104,042	3,542,406	9
16,157	39,249	26,073	27,074	90,281	102,206	87,751	116,477	10
204,713	112,046	313,108	181,432	676,336	257,384	410,183	609,767	11
781	2,310	2,654	22,915	61,271	66,214	47,216	62,068	12
56,453	142,402	77,797	95,867	76,429	151,413	102,427	121,622	13
131	169	4	448	9,537	17,425	16,212	16,229	14
69,534	113,472	237,716	590,681	126,052	196,258	269,679	600,330	15
72,256	69,220	88,250	34,888	72,256	69,220	88,250	34,888	16
201,899	253,805	239,922	62,481	201,899	253,805	239,922	62,481	
6,878,990	6,474,064	6,237,821	5,148,498	7,862,105	7,545,351	6,994,877	5,797,805	17
8,878,087	**10,258,431**	**10,643,561**	**8,629,714**	**14,699,785**	**16,428,376**	**18,077,313**	**15,036,359**	
417,417,144	**474,987,367**	**466,419,539**	**478,006,114**	**1,069,067,353**	**1,315,355,791**	**1,252,157,506**	**1,228,207,606**	

Kingdom, United States and All Countries, fiscal years 1925-1928.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
172,101	150,539	201,581	199,011	172,119	150,840	201,589	199,223	1
867,826	796,851	857,435	1,123,915	868,031	800,059	857,583	1,124,839	
2,439,489	2,768,670	2,825,150	3,318,447	2,463,925	2,803,432	2,869,947	3,380,790	2
4,140,867	4,235,747	4,933,605	5,497,999	4,194,017	4,277,828	4,987,899	5,571,521	
19,966	20,758	29,023	10,898	19,966	20,758	29,024	19,899	3
194,262	205,204	216,176	221,253	194,263	205,204	216,183	221,260	
20,196,829	17,651,928	16,892,136	19,057,320	20,908,244	18,655,220	17,817,020	19,575,228	4
716,566	878,166	823,611	921,142	742,330	924,558	863,471	941,523	
9,479,571	11,549,342	16,345,376	22,350,587	10,965,517	12,565,121	16,806,808	23,073,565	5
683,603	703,178	866,144	1,097,236	862,298	826,531	939,164	1,189,124	
–	211,208	316,926	246,347	–	345,677	385,889	359,088	6
732,375	928,852	1,012,134	1,079,300	1,058,569	1,345,575	1,216,222	1,470,633	
3,550,956	3,774,596	3,520,987	4,512,522	3,552,771	3,774,596	3,520,987	4,512,636	7
320,885	412,600	382,644	498,663	321,285	412,600	382,644	498,731	
–	1,617,018	2,144,191	2,362,141	–	1,729,555	2,263,369	2,498,644	8
6,196,434	7,086,905	8,060,048	9,554,567	6,409,805	7,406,484	8,421,635	9,940,781	
14,708,042	14,896,421	13,508,888	15,725,162	14,708,042	14,898,566	13,508,888	15,725,162	9
609,318	642,867	501,576	663,062	609,318	643,001	501,576	663,062	
18,561,087	20,878,477	22,422,846	18,424,307	18,566,117	20,905,150	22,430,147	18,434,357	10
807,768	924,256	854,961	927,344	807,959	926,398	855,274	928,565	
472,351	511,720	526,298	519,042	478,988	520,169	538,737	524,489	11
102,314	190,690	172,013	205,239	102,314	190,754	172,013	205,239	12
358,212	494,753	425,226	544,055	358,212	495,035	425,226	544,055	
5,186,110	3,168,975	3,939,207	6,222,419	5,186,110	3,168,975	3,944,707	6,222,419	13
764,593	607,345	667,917	832,018	764,593	607,345	668,417	832,018	
17,089,028	16,683,864	20,399,716	23,795,082	17,927,772	19,703,278	21,288,234	24,859,503	

13.—Principal Imports into Canada for Consumption from United

No.	Items.		United Kingdom. 1925.	1926.	1927.	1928.[1]
	I. Agricultural and Vegetable Products—con.					
	A. Mainly Food—continued.					
	Fruits—concluded.					
	Dried—					
1	Currants	lb.	10,488	417,012	123,847	2,743
		$	1,164	28,954	8,169	346
2	Dates	lb.	2,925,181	5,203,940	3,541,699	8,742,708
		$	136,014	236,915	190,729	351,395
3	Figs	lb.	43,567	260,817	49,458	213,819
		$	4,046	16,544	3,803	10,696
4	Peaches	lb.	–	–	–	–
		$	–	–	–	–
5	Prunes and plums	lb.	–	–	14	–
		$	–	–	3	–
6	Raisins	lb.	154,121	635,040	999,407	381,336
		$	14,431	60,769	79,013	35,800
	Total dried fruits[2]	$	155,666	344,774	282,937	407,936
7	Canned	lb.	85,143	83,979	217,606	124,734
		$	8,323	8,295	13,671	9,947
8	Jellies and jams	lb.	1,979,629	1,661,467	1,568,196	1,438,509
		$	278,207	210,107	203,663	183,202
9	Fruit juices and syrups	gal.	23,243	11,666	12,500	23,825
		$	27,197	20,712	23,977	35,344
	Total fruits[2]	$	543,856	705,932	610,769	756,781
	Nuts—					
10	Cocoanuts	No.	5,000	–	1,100	–
		$	160	–	33	–
11	Cocoanut, desiccated	$	27,999	10,407	10,606	7,281
12	Other, not shelled	lb.	360,982	246,324	184,535	90,713
		$	23,435	30,989	19,935	13,798
13	Other, shelled	lb.	226,221	119,093	386,822	268,954
		$	64,401	51,509	107,758	105,727
	Total nuts[2]	$	115,974	92,905	138,332	126,806
	Vegetables—					
14	Onions	$	57,496	89,134	53,270	67,262
15	Potatoes (except sweet)	cwt.	–	–	–	13
		$	–	–	–	14
16	Tomatoes, fresh	bush.	–	–	10	3
		$	–	–	51	26
17	Canned	lb.	18,911	1,759	7,232	21,659
		$	3,628	164	822	4,246
18	Sauces and pickles	gal.	195,466	157,768	173,990	197,931
		$	348,573	288,307	319,897	354,233
	Total vegetables[2]	$	410,644	378,050	374,088	430,179
	Grains and farinaceous products—					
	Grains—					
19	Beans	bush.	5,831	11,633	47,863	22,090
		$	21,700	38,330	87,395	43,033
20	Corn	bush.	39	36	199	–
		$	103	113	291	–
21	Oats	bush.	–	1,138	11	664
		$	–	1,096	15	1,081
22	Rice	cwt.	36,321	30,583	30,384	2,532
		$	154,588	110,266	93,612	10,167
	Milled products—					
23	Corn meal	brl.	–	–	–	–
		$	–	–	–	–
24	Wheat flour	brl.	22	40	298	197
		$	63	527	5,230	2,109
	Prepared foods and bakery products—					
25	Biscuits	lb.	740,983	982,161	966,232	1,307,412
		$	103,165	129,682	134,887	168,714
26	Macaroni and vermicelli	lb.	–	246	972	1,275
		$	–	30	116	165
27	Cereal foods, prepared	$	19,902	22,977	18,447	21,951

[1]Subject to revision. [2]Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
1,137,418	305,208	128,080	38,536	5,883,464	4,889,109	4,609,481	6,190,608	1
109,667	26,775	9,653	4,425	494,500	334,263	318,716	626,833	
6,476,554	6,061,209	6,356,256	4,503,840	9,772,011	11,727,978	10,033,627	13,885,325	2
593,129	526,856	563,339	418,600	748,404	792,204	762,820	815,829	
2,042,583	2,454,427	2,679,949	1,586,192	3,939,473	4,694,301	4,507,351	4,775,414	3
181,567	220,583	244,928	128,679	317,112	418,504	373,282	327,653	
2,235,506	1,621,878	1,630,022	1,717,252	2,235,656	1,621,878	1,630,022	1,717,532	4
195,974	171,216	220,349	157,246	196,001	171,216	220,349	157,299	
15,742,327	14,759,262	17,324,868	20,092,720	15,779,427	14,776,062	17,367,119	20,107,420	5
1,047,739	1,105,976	1,159,118	1,137,749	1,051,148	1,109,827	1,165,501	1,140,147	
41,232,094	31,006,435	35,768,110	39,321,010	44,421,632	33,811,732	39,497,420	44,710,803	6
2,845,649	2,048,729	2,502,657	2,363,984	3,157,677	2,325,285	2,912,743	2,965,970	
5,258,704	4,344,415	4,998,919	4,455,691	6,277,143	5,421,768	6,071,694	6,311,756	
10,268,376	11,651,350	14,891,158	17,940,832	15,253,675	18,133,917	26,047,533	29,591,401	7
1,030,786	1,116,068	1,455,431	1,585,682	1,375,322	1,526,488	2,156,261	2,373,780	
62,209	67,983	56,805	117,797	2,350,078	2,283,599	2,151,818	2,288,592	8
15,799	15,893	13,028	22,393	361,160	332,615	327,772	334,862	
21,029	31,284	47,804	45,159	79,583	66,816	76,528	114,131	9
45,720	62,905	118,285	142,003	86,142	106,690	152,133	200,076	
23,478,547	24,261,135	27,031,800	30,087,263	26,210,814	27,313,170	30,296,744	34,379,286	
333,058	257,795	190,062	154,058	4,735,199	6,780,580	8,463,347	8,375,017	10
13,789	9,770	7,330	6,001	124,751	185,715	177,091	188,251	
8,663	5,605	1,559	1,419	265,504	169,688	168,737	193,226	11
4,193,729	3,061,244	3,808,844	2,926,950	11,164,924	11,393,556	13,478,212	12,530,632	12
464,832	410,198	416,226	411,553	915,174	1,080,475	1,074,893	1,039,796	
4,409,042	7,709,966	9,234,404	8,097,695	17,382,446	19,212,665	21,939,810	23,085,271	13
931,473	1,067,737	1,212,604	1,138,263	2,886,048	3,086,611	3,282,346	3,636,671	
1,418,757	1,493,310	1,637,719	1,557,318	4,191,477	4,522,489	4,703,067	5,058,030	
214,632	155,620	228,764	221,433	401,814	423,546	427,635	548,521	14
620,602	261,092	281,811	300,647	620,919	261,297	282,055	300,886	15
834,634	481,236	646,821	798,316	835,497	481,933	647,508	799,039	
331,278	297,564	395,945	495,603	345,712	329,781	427,190	571,277	16
875,716	1,009,928	1,068,750	1,349,199	917,859	1,110,587	1,173,067	1,550,102	
9,612,344	8,679,995	8,952,204	10,204,180	13,608,542	13,756,578	13,977,167	16,443,572	17
802,319	735,751	720,824	840,162	1,240,616	1,235,560	1,219,379	1,441,089	
89,675	98,631	99,533	153,334	429,642	395,134	419,254	497,528	18
144,342	158,978	184,462	221,956	569,156	529,805	582,489	659,396	
4,829,371	4,715,674	5,311,349	6,496,376	6,030,797	6,038,189	6,594,722	8,175,549	
14,128	16,746	60,719	47,535	150,524	146,405	595,924	430,880	19
64,499	83,954	190,906	161,059	350,369	362,064	1,126,976	962,585	
5,464,694	7,379,343	11,450,512	7,484,774	8,192,881	8,321,434	14,171,275	14,991,064	20
5,973,448	6,675,421	8,641,324	6,771,583	8,655,225	7,801,697	10,910,611	13,057,832	
833,323	1,870,803	1,832,358	3,092,331	933,323	1,872,242	1,833,369	3,092,999	21
513,602	860,967	794,721	1,783,613	513,602	862,276	794,736	1,784,698	
109,437	40,822	62,838	164,049	541,794	603,645	523,547	675,842	22
570,309	204,070	266,605	561,517	2,293,245	2,534,034	2,115,787	2,357,982	
38,873	39,771	41,414	43,354	38,873	39,771	41,414	43,402	23
220,814	205,063	177,849	216,815	220,814	205,063	177,849	216,937	
76,036	46,342	57,178	69,488	76,100	46,426	57,488	69,733	24
526,102	403,721	448,933	527,496	526,592	404,778	454,295	530,160	
960,239	1,781,321	1,721,557	2,146,762	1,790,262	2,837,390	2,817,076	3,588,008	25
136,853	214,321	211,760	261,986	255,970	355,536	364,265	453,786	
1,191,361	1,239,251	1,568,864	1,848,511	1,632,276	1,664,802	2,007,452	2,095,189	26
112,477	120,584	152,465	176,166	159,396	166,159	190,071	196,500	
154,879	204,110	305,457	253,818	177,637	229,335	326,650	278,633	27

13.—Principal Imports into Canada for Consumption from United

No.	Items.		United Kingdom. 1925.	1926.	1927.	1928.[1]
	I. Agricultural and Vegetable Products—con.					
	A. Mainly Food—concluded.					
	Prepared foods and bakery products—con.					
1	Malt	lb.	98,592	29,952	59,952	110,068
		$	5,503	1,679	2,942	6,111
2	Sago and tapioca	lb.	136,653	217,825	19,996	207,031
		$	8,384	7,710	1,154	6,650
	Total grains and farinaceous products[2]	$	422,813	465,760	532,632	465,924
	Oils, vegetable, for food—					
3	Cocoanut oil, n.o.p.	gal.	28,602	30,552	29,335	28,761
		$	33,403	37,302	35,113	35,568
4	Cotton-seed oil for canning fish	gal.	–	–	46,725	58,825
		$	–	–	56,415	55,256
5	Olive oil, n.o.p.	gal.	2,525	7,573	5,489	1,489
		$	5,854	15,830	6,846	4,137
6	Peanut and soya-bean oil, n.o.p.	gal.	1,164	474	2,353	5,813
		$	1,055	452	2,164	5,532
	Total oils, vegetable, for food[2]	$	40,732	53,584	100,630	101,650
	Sugar and its products—					
7	Molasses, 56 degrees or less, imported under Preferential tariff	gal.	–	100	2,368	–
		$	–	24	936	–
8	Sugar, not above No. 16, D.S.	lb.	25	–	–	47
		$	51	–	–	200
9	Sugar, above No. 16, D.S.	lb.	12,163,551	950	2,592	2,300
		$	718,643	3,972	9,799	10,879
10	Candy (incl. chocolate)	lb.	1,961,440	3,000,352	3,791,853	3,219,645
		$	463,722	771,685	960,973	684,296
	Total sugar, etc.[2]	$	1,375,426	926,355	1,114,495	832,817
	Tea, coffee, cocoa and spices—					
	Cocoa—					
11	Cocoa beans, not roasted, crushed, or ground	cwt.	33,695	50,121	39,109	40,218
		$	294,095	502,781	526,357	603,106
12	Cocoa butter	lb.	314,586	194,112	493,798	262,252
		$	59,585	52,638	160,535	100,909
13	Other	$	18,634	45,508	49,004	16,180
	Coffee and chicory—					
14	Coffee, green	lb.	583,146	432,898	1,163,117	2,488,810
		$	138,447	125,021	314,574	626,965
15	Other coffee and chicory	$	14,414	19,888	23,302	39,156
	Spices—					
16	Ginger, unground	lb.	30,914	46,512	115,145	256,397
		$	5,898	6,577	11,295	22,813
17	Mustard, ground	lb.	705,240	682,926	640,948	673,616
		$	352,104	378,641	346,111	347,170
18	Vanilla beans, crude	lb.	914	3,190	2,005	2,500
		$	7,481	9,148	4,439	5,263
	Total spices[2]	$	445,699	494,938	481,832	614,702
19	Tea	lb.	12,472,095	14,968,563	15,888,123	14,664,322
		$	4,556,379	5,311,634	5,848,530	5,279,929
20	Yeast	lb.	665	–	580	464
		$	167	–	247	78
21	Hops	lb.	50,531	102,749	208,899	142,390
		$	26,610	54,009	53,910	33,956
22	Liquorice paste	lb.	150	100	3,367	1,440
		$	27	24	424	217
23	Malt extract	lb.	151,115	168,929	206,546	372,499
		$	15,477	13,980	18,646	26,733
	Total Agricultural and Vegetable Products—					
	A. Mainly Food[2]	$	**8,556,218**	**9,311,788**	**10,417,686**	**10,125,184**

[1] Subject to revision. [2] Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
15,354,395	22,445,655	21,350,397	32,180,126	15,528,937	22,497,763	21,410,349	32,524,599	1
434,829	659,519	556,636	963,044	444,270	662,578	559,578	981,491	
88,249	270,726	155,358	232,662	4,457,018	4,233,323	2,824,106	3,379,833	2
5,721	13,274	12,533	23,646	191,629	151,510	102,771	133,080	
9,723,358	10,911,519	12,582,044	12,784,443	15,019,485	15,275,321	18,216,352	22,358,442	
27,127	15,488	7,638	8,209	55,729	46,040	37,111	36,970	3
33,673	23,918	9,397	12,428	67,076	61,220	44,636	47,996	
78,658	84,647	24,761	29,773	78,658	84,647	73,726	90,416	4
88,007	97,215	28,339	30,033	88,007	97,215	88,892	89,616	
12,908	8,427	9,489	12,796	215,425	249,374	305,069	283,493	5
22,831	16,863	20,751	25,589	363,994	417,378	489,035	552,420	
7,226	52,149	43,308	14,946	58,243	128,263	84,041	87,454	6
8,524	54,571	41,500	13,362	61,830	143,329	85,372	90,202	
170,421	211,044	127,843	108,669	598,713	737,619	735,883	808,648	
–	–	–	–	4,221,812	5,159,578	4,768,283	5,098,890	7
–	–	–	–	2,644,296	2,200,743	1,761,071	2,212,249	
69,644,057	608,582	407,106	127,401	8,387,427	11,585,441	11,295,589	8,947,779	8
3,147,296	1,547,444	1,099,739	384,491	35,805,791	32,121,839	34,947,666	31,475,335	
22,403,409	88,611	49,906	33,998	435,868	158,992	444,077	722,814	9
1,425,551	375,969	231,385	170,147	2,611,091	618,811	1,680,039	3,245,527	
705,857	1,108,855	864,084	1,153,869	2,991,655	4,665,199	5,096,531	4,891,600	10
146,054	164,238	167,259	221,886	681,582	1,068,089	1,224,526	1,030,678	
5,098,633	2,488,813	2,126,921	1,297,776	42,367,504	36,593,953	40,486,316	38,821,678	
27,569	38,513	36,001	30,520	101,790	165,996	137,667	177,783	11
317,445	474,425	535,650	490,754	984,075	1,754,972	1,786,435	2,687,097	
1,276,203	2,204,659	524,065	978,466	5,163,726	5,148,026	5,195,296	5,408,622	12
320,974	615,445	182,950	333,799	1,083,026	1,404,880	1,444,354	1,916,510	
81,813	105,147	103,325	132,040	120,573	184,550	190,161	185,287	13
112,208	121,229	118,968	67,191	21,412,011	21,166,108	24,907,691	27,126,506	14
28,477	31,725	28,290	16,426	4,622,196	5,103,592	5,676,759	5,667,068	
285,018	361,993	423,442	498,306	305,629	387,109	453,242	543,039	15
133,810	32,826	36,001	13,006	596,717	760,699	1,147,497	732,336	16
22,004	5,024	3,492	1,682	96,967	137,748	150,516	59,476	
324,213	315,371	280,856	244,753	1,029,553	998,431	922,245	918,371	17
31,769	33,024	33,335	27,957	383,852	411,679	379,518	375,128	
33,138	35,335	34,598	46,481	36,849	54,603	54,833	53,326	18
289,226	219,117	116,228	115,173	315,709	256,280	174,180	125,817	
536,524	424,688	258,879	247,240	1,370,684	1,431,886	1,354,733	1,487,515	
135,805	67,893	164,718	107,038	36,255,149	37,378,910	37,091,340	38,658,494	19
29,506	23,525	34,981	30,695	11,727,343	12,188,046	12,236,714	12,310,414	
2,029,692	2,455,994	2,315,130	2,161,539	2,030,477	2,456,046	2,322,887	2,167,396	20
572,056	666,862	696,273	406,582	572,264	666,868	697,244	408,346	
2,569,282	2,302,981	1,699,615	1,466,038	2,873,791	2,713,205	2,251,097	2,068,895	21
725,358	756,806	587,007	481,160	826,690	883,929	749,604	709,344	
1,697,875	1,697,875	1,680,406	1,632,245	1,414,459	1,707,047	1,686,388	1,640,179	22
236,650	236,650	229,301	231,101	227,848	238,053	230,067	232,177	
3,721,350	3,053,159	3,624,341	3,649,898	3,872,793	3,222,416	3,831,502	4,022,855	23
234,703	231,174	278,792	282,364	250,211	245,193	297,502	309,151	
48,138,959	**48,075,709**	**52,304,197**	**55,610,666**	**116,655,869**	**115,113,033**	**126,355,107**	**136,267,062**	

13.—Principal Imports into Canada for Consumption from United

No.	Items.	United Kingdom.			
		1925.	1926.	1927.	1928.[1]
	I. Agricultural and Vegetable Products—con.				
	B. Other than Food.				
	Beverages, alcoholic—				
1	Brewed (beer, etc.) gal.	86,362	117,457	114,136	161,228
	$	171,591	240,580	239,145	322,617
2	Distilled spirits gal.	796,548	1,034,241	1,217,514	1,849,255
	$	15,519,367	21,062,256	25,158,924	38,243,427
	Wines—				
3	Non-sparkling gal.	13,032	10,055	13,868	16,894
	$	60,262	44,412	59,780	111,206
4	Sparkling $	19,587	13,422	10,188	15,476
	Total beverages, alcoholic $	15,770,807	21,359,680	25,468,037	38,692,726
	Gums and Resins—				
5	Chicle gum, crude lb.	–	–	–	–
	$	–	–	–	–
6	Lac, crude lb.	1,134	3,658	1,542	586
	$	85	905	731	306
7	Resin or rosin cwt.	139	1,386	65	28
	$	1,185	7,184	746	310
	Total gums and resins[2] $	38,834	42,472	25,527	28,886
8	Oilcake and meal cwt.	–	–	–	–
	$	–	–	–	–
	Oils, vegetable, not food—				
9	Chinawood lb.	2,215	–	–	–
	$	430	–	–	–
10	Cocoanut, palm, etc., not edible, peanut, etc., for manufacture of soap gal.	43,086	58,271	43,836	40,093
	$	41,577	63,872	38,729	34,901
11	Cotton-seed, crude, for refining cwt.	–	2,396	11,593	392
	$	–	20,497	107,825	3,548
12	Essential (except peppermint) lb.	71,564	100,360	113,549	118,363
	$	83,408	118,352	116,948	112,854
13	Flaxseed or linseed lb.	707,321	299,461	519,111	428,160
	$	60,532	29,233	39,894	31,407
14	Peanut for refining for food cwt.	–	13,471	3,468	–
	$	–	133,164	31,947	–
	Total oils, vegetable, not food[2] $	331,062	562,332	453,987	286,750
15	Plants, trees, shrubs and vines $	26,342	28,706	30,930	56,012
	Rubber—				
16	Raw (incl. balata) lb.	5,587,604	2,558,382	141,178	165,212
	$	1,605,597	1,349,252	54,573	65,604
17	Recovered lb.	–	22,511	–	–
	$	–	16,346	–	–
18	Thread lb.	38,600	61,250	5,236	9,057
	$	37,311	67,086	8,735	11,533
19	Pneumatic tire casings No.	1,413	6,961	124	186
	$	4,497	8,004	1,289	1,831
20	Inner tubes, n.o.p. No.	3,831	2,207	58	74
	$	1,443	1,190	123	169
	Total rubber[2] $	2,201,589	2,053,787	679,031	724,496
	Seeds—				
21	Clover lb.	833,006	201,309	281,494	356,939
	$	282,995	79,800	81,209	92,073
22	Flax bush	–	16	1,036	12
	$	–	57	4,148	818
23	Timothy lb.	–	–	500	–
	$	–	–	54	–
	Total seeds[2] $	486,748	286,450	258,960	263,882

[1] Subject to revision. [2] Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
108	103	65	13	91,298	152,255	153,105	234,701	1
201	147	147	26	181,891	316,446	333,383	428,673	
3,623	2,633	2,168	2,011	1,194,500	1,449,361	1,633,254	2,457,131	2
14,755	10,845	7,862	6,386	17,814,620	23,546,330	27,342,743	42,206,017	
614	280	1,864	190	604,655	560,945	684,132	828,979	3
1,276	627	1,718	353	838,297	842,154	958,894	1,582,585	
1,256	–	–	–	288,821	549,143	677,295	1,682,912	4
17,488	11,619	9,727	6,765	19,123,629	25,254,073	29,312,315	45,900,187	
610,299	664,846	748,242	977,861	776,806	1,050,935	1,125,547	1,186,255	5
257,609	279,884	380,439	447,657	338,577	474,087	558,276	553,605	
916,209	1,107,921	1,554,525	1,487,395	925,933	1,111,829	1,573,199	1,493,489	6
576,140	578,185	637,411	756,112	581,599	579,243	642,984	759,549	
271,879	319,103	316,371	333,677	272,346	321,145	317,849	334,544	7
588,743	1,241,277	1,343,918	1,089,397	591,172	1,251,719	1,356,997	1,093,382	
1,917,269	2,674,171	2,961,276	2,907,872	2,116,812	2,970,739	3,270,323	3,128,781	
78,202	87,839	247,425	102,927	84,602	95,174	255,921	113,218	8
171,069	171,735	377,283	209,644	180,645	185,169	393,183	229,469	
3,305,691	3,193,714	4,244,736	4,246,075	3,323,935	3,261,812	4,494,136	4,506,618	9
456,749	397,340	531,573	686,444	459,114	405,658	562,366	726,472	
1,636,549	2,387,731	2,749,763	3,180,403	1,692,744	2,591,232	3,177,800	3,377,856	10
1,368,138	2,076,104	2,228,777	2,355,904	1,420,149	2,278,984	2,602,346	2,525,341	
213,201	333,359	265,914	618,416	213,201	335,755	297,706	623,148	11
1,970,605	3,054,176	2,141,172	5,205,047	1,970,605	3,074,673	2,421,260	5,244,156	
199,275	234,531	261,946	256,518	356,206	459,965	541,553	572,215	12
334,602	427,369	392,486	394,265	577,586	730,001	797,587	864,414	
98,755	188,086	352,680	280,802	855,454	513,873	885,718	725,084	13
13,682	24,829	44,775	35,700	79,499	57,495	86,247	68,828	
156,393	61,616	92,641	22,717	261,808	146,878	374,460	52,148	14
1,485,102	556,534	915,522	234,195	2,347,059	1,312,412	3,490,799	478,201	
6,082,047	7,234,773	7,013,847	9,713,631	7,482,872	8,797,956	10,912,499	10,890,876	
388,483	378,381	409,537	422,013	1,161,927	1,239,909	1,365,757	1,490,115	15
26,290,494	37,226,955	45,444,648	52,497,240	34,450,863	46,989,251	50,231,202	58,078,272	16
7,535,175	26,012,464	20,357,953	19,294,420	9,820,256	32,109,245	22,317,583	21,344,791	
3,165,182	7,932,509	8,692,535	10,217,666	3,165,182	7,955,020	8,692,535	10,218,666	17
336,918	965,417	1,061,909	873,123	336,918	981,783	1,061,909	873,243	
68,498	99,211	145,994	227,935	107,098	160,461	151,230	237,023	18
75,954	123,838	217,500	286,493	113,265	190,924	226,235	298,053	
45,959	22,740	20,276	21,186	49,418	33,880	20,497	21,381	19
538,273	438,726	280,858	262,713	550,146	449,602	283,385	264,721	
19,484	16,214	23,287	45,715	27,648	22,391	23,393	45,795	20
61,640	56,082	52,106	88,392	64,670	58,356	52,295	88,580	
11,041,703	30,304,113	24,657,741	23,775,356	13,977,933	37,182,838	27,377,947	26,671,064	
1,478,549	919,613	1,303,763	930,584	2,667,239	1,852,947	2,370,034	2,138,336	21
329,013	210,096	323,153	219,160	707,848	432,025	586,468	498,031	
374	18,581	39,953	38	394,977	19,032	831,675	313,830	22
1,179	37,177	80,417	102	786,050	38,280	1,564,839	576,441	
10,114,291	7,398,329	6,659,674	8,247,363	10,114,291	7,398,329	6,570,174	8,247,363	23
787,398	604,540	440,438	408,676	787,398	604,540	440,492	408,676	
1,644,681	1,377,066	1,337,381	1,079,220	3,222,227	2,084,967	3,492,183	2,280,536	

13.—Principal Imports into Canada for Consumption from United

No.	Items.		United Kingdom.			
			1925.	1926.	1927.	1928.[1]
	I. Agricultural and Vegetable Products—con.					
	B. Other than Food—concluded.					
	Tobacco—					
1	Unmanufactured	lb.	98,432	12,819	115,232	22,311
		$	27,940	3,198	51,072	29,625
2	Cut	lb.	159,173	162,731	143,310	134,362
		$	487,602	539,240	473,318	464,451
3	Other manufactured	$	267,492	314,842	275,078	307,239
	Total tobacco	$	783,034	857,280	799,468	801,315
4	Broom corn	$	–	–	–	–
5	Hay	ton	–	–	–	–
		$	–	–	–	–
6	Starch, including farina, cornstarch, potato starch, etc	lb.	196,416	180,842	109,779	232,045
		$	12,365	12,466	7,631	13,366
7	Tar, pine, crude	gal.	7,336	3,323	3,654	2,678
		$	3,033	610	1,511	955
8	Turpentine, spirits of	gal.	57	5	816	53
		$	130	35	845	121
	Total Agricultural and Vegetable Products—B. Other than Food[2]	$	**19,709,762**	**25,301,576**	**27,836,343**	**41,008,654**
	Total Agricultural and Vegetable Products	$	**28,265,980**	**34,613,364**	**38,251,029**	**51,133,838**
	II. Animals and Animal Products.					
	Animals—					
9	For exhibition	$	–	–	1,000	–
10	For improvement of stock	$	104,753	117,258	144,408	207,829
11	Bone, ivory and shell products	$	98,386	57,164	75,907	86,934
12	Feathers and quills	$	49,729	41,812	53,283	54,879
	Fishery products, n.o.p.[3]					
	Fresh—					
13	Halibut	lb.	–	–	–	–
		$	–	–	–	–
14	Oysters, shelled	gal.	–	–	–	–
		$	–	–	–	–
15	Oysters, other	$	–	–	–	–
16	Other fresh fish	$	3,263	3,664	3,221	1,594
	Dried, salted, smoked or pickled, n.o.p.—					
17	Cod	lb.	212,863	25,500	200	–
		$	21,699	3,714	4	–
18	Herrings	lb.	1,064,465	677,509	886,782	1,021,491
		$	59,762	52,485	66,382	81,535
19	Other	$	24,882	1,029	3,780	1,230
	Canned—					
20	Sardines, 8 oz. or less	box	73,574	60,519	34,612	85,226
		$	5,868	4,634	2,812	7,974
21	Sardines, other	box	2,646	11,436	4,845	1,155
		$	350	1,261	535	206
22	Other canned fish	$	68,356	75,697	104,948	127,248
	Total fishery products, n.o.p.[3]	$	188,342	147,143	186,250	226,045
	Furs and fur skins—					
	Unmanufactured—					
23	Undressed (including marine)	$	575,982	800,912	1,050,162	916,967
24	Other	$	113,440	174,239	221,433	278,212
25	Manufactured	$	25,456	38,899	38,460	38,692
	Total furs and fur skins[2]	$	714,878	1,014,050	1,310,055	1,233,871

[1] Subject to revision. [2] Totals include other items not specified. [3] Not including turtles, shell products, seal skins, fish oils and ambergris.

Kingdom, United States and All Countries, fiscal years 1925–1928—continued.

United States.				All Countries.				No.
1925	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
12,335,687	14,000,926	15,933,267	16,853,796	13,712,885	14,943,864	17,446,774	18,475,772	1
4,592,936	5,361,251	5,170,848	5,594,946	5,944,699	6,311,782	6,473,167	7,018,880	
126,790	141,162	166,689	173,065	322,366	332,948	343,513	337,130	2
139,199	155,119	184,336	193,820	644,221	711,603	674,515	673,376	
42,661	59,312	57,025	70,313	425,619	502,091	454,331	508,860	3
4,774,796	5,576,682	5,412,210	5,859,079	7,014,539	7,525,476	7,602,013	8,201,116	
523,197	483,425	380,844	377,883	523,197	483,425	382,214	377,883	4
10,281	8,493	5,464	8,484	10,282	8,510	5,464	8,484	5
156,515	141,669	92,016	129,035	156,556	142,249	92,016	129,035	
2,285,372	2,081,284	2,450,594	2,880,909	4,465,246	3,989,183	4,693,145	6,566,004	6
115,199	122,194	138,063	162,489	201,231	205,167	217,829	303,952	
222,202	338,553	332,671	405,546	229,538	341,876	349,329	424,337	7
53,624	83,618	100,035	102,910	56,657	84,228	106,325	108,446	
946,112	897,236	970,397	989,301	946,206	897,732	971,739	995,395	8
819,322	879,417	851,496	582,275	819,482	789,882	852,749	587,422	
28,422,890	50,420,146	44,800,346	46,398,367	56,929,970	88,304,398	86,743,014	101,918,498	
76,561,849	98,495,819	97,101,543	102,209,033	183,575,839	203,417,431	213,098,121	238,185,560	
1,743,331	1,622,906	1,441,967	1,381,411	1,743,406	1,685,491	1,470,967	1,381,411	9
264,356	277,654	309,542	455,260	382,895	396,959	460,294	698,414	10
250,947	302,274	302,156	323,867	376,888	412,532	441,489	483,529	11
182,402	135,826	108,251	89,954	298,697	268,370	225,584	207,168	12
600,736	466,024	418,712	889,807	986,470	1,469,907	1,247,872	1,771,212	13
56,759	39,504	47,428	87,018	102,496	141,595	142,040	180,125	
107,291	110,135	118,034	126,569	107,291	110,135	118,034	126,569	14
269,757	287,924	300,448	330,911	269,757	287,924	300,448	330,911	
20,251	20,711	23,853	24,980	20,251	20,711	23,963	25,283	15
156,617	134,347	153,652	166,141	360,954	254,279	275,225	310,161	16
42,590	34,662	45,232	26,787	5,406,178	2,767,751	5,301,602	11,775,343	17
5,482	4,351	4,271	3,027	357,664	159,346	272,230	509,375	
502,360	915,129	719,856	674,918	5,886,794	7,594,119	7,499,525	6,678,669	18
53,449	78,651	74,034	71,989	269,282	307,596	337,968	318,919	
32,528	30,274	29,591	38,353	216,501	201,956	223,632	203,353	19
43,027	40,626	52,809	35,417	6,829,115	5,127,164	6,446,976	7,319,532	20
5,800	4,113	5,954	4,272	529,484	390,887	498,694	619,452	
14,910	11,161	21,579	6,747	83,715	94,513	127,460	113,412	21
2,618	2,572	4,825	1,496	17,083	23,237	24,265	27,853	
160,289	162,470	250,682	239,675	373,188	365,786	527,862	571,095	22
855,436	864,770	985,947	1,067,487	2,646,823	2,293,875	2,790,455	3,290,015	
5,673,156	7,181,964	8,218,433	11,097,336	6,542,337	8,284,549	9,953,730	13,289,863	23
820,181	967,537	1,334,539	1,110,625	1,670,980	2,263,686	3,281,370	3,206,436	24
85,975	67,042	73,439	96,028	120,254	112,273	130,024	157,522	25
6,579,312	8,216,543	9,626,411	12,303,989	8,333,571	10,660,508	13,365,124	16,653,821	

13.—Principal Imports into Canada for Consumption from United

No.	Items.	United Kingdom.			
		1925.	1926.	1927.	1928.[1]
	II. Animals and Animal Products—con.				
	Hides and skins—				
1	Calf..... cwt.	–	–	–	–
	$	–	–	–	–
2	Cattle..... cwt.	2,311	2,305	1,927	5,636
	$	26,308	33,450	23,926	109,167
3	Sheep..... cwt.	2,740	565	1,079	87
	$	64,807	18,565	31,425	1,439
	Total hides and skins[2]..... $	98,782	82,105	94,347	128,294
	Leather—				
4	Unmanufactured..... $	603,873	617,177	728,223	1,501,004
	Manufactured—				
5	Boots and shoes, pegged, etc..... $	6,353	2,781	2,481	4,284
	Boots and shoes, n.o.p.—				
6	Men's..... pair	241,887	202,347	186,722	221,940
	$	744,695	602,992	579,455	683,343
7	Women's..... pair	107,611	78,548	94,072	55,746
	$	192,630	119,519	144,015	99,441
8	Children's..... pair	99,009	92,102	75,132	51,232
	$	107,368	79,208	57,465	41,756
9	Gloves..... $	132,273	157,147	185,783	175,570
	Total leather[2]..... $	2,069,499	1,936,018	2,032,368	2,837,381
10	Bristles, animal..... lb.	22,504	10,363	9,646	18,376
	$	47,990	19,711	14,314	20,023
11	Hair and mfrs. of, n.o.p..... $	16,774	12,369	11,360	14,425
	Meats—				
12	Beef, fresh..... lb.	–	240	445	1,020
	$	–	13	112	98
13	Mutton, fresh..... lb.	–	26,320	43,154	11,716
	$	–	2,802	4,249	1,003
14	Pork, fresh..... lb.	–	–	–	–
	$	–	–	–	–
15	Bacon and hams..... lb.	2,058	1,132	1,893	89,931
	$	746	472	2,897	12,393
16	Canned meats..... lb.	711,651	918,167	1,625,147	542,950
	$	130,512	185,367	280,368	110,960
17	Pork, barrelled in brine..... lb.	–	–	200	600
	$	–	–	33	87
18	Pork, dry salted..... lb.	–	–	–	–
	$	–	–	–	–
19	Sausage..... lb.	–	–	67	43
	$	–	–	13	42
20	Soups, all kinds..... $	1,045	1,289	1,280	4,070
	Total meats[2]..... $	189,679	302,515	435,632	310,040
	Milk and its products—				
21	Butter..... lb.	11,245	2,062,893	1,418,444	1,325,190
	$	3,998	759,162	504,679	457,809
22	Cheese..... lb.	3,092,192	5,189,360	46,923	86,815
	$	661,754	1,044,214	16,488	28,999
23	Other..... $	9,400	9,409	9,946	5,101
	Oils, fats, greases and waxes—				
24	Cod liver oil..... gal.	1,181	1,104	1,474	1,945
	$	1,278	1,445	1,324	2,050
25	Grease, rough, for manufacture of soaps and oils..... cwt.	259	624	445	64
	$	1,634	4,876	3,247	389
26	Lard..... lb.	2	2,300	4,493	650
	$	1	284	919	123
27	Lard compound..... lb.	56	27,279	20,194	22,857
	$	7	4,185	2,467	2,342
	Total oils, fats, etc.[2]..... $	31,383	57,575	26,583	20,245

[1] Subject to revision. [2] Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
50,553	58,795	70,971	79,786	52,824	61,279	81,687	88,507	1
1,412,967	1,671,275	1,658,287	2,194,407	1,474,798	1,741,958	1,947,738	2,461,515	
181,410	281,735	358,392	344,576	397,799	423,864	452,680	526,136	2
2,393,895	3,866,592	4,352,993	6,724,280	5,342,085	6,013,894	5,833,279	10,224,271	
29,565	27,349	26,390	46,997	35,191	32,051	31,175	47,491	3
894,090	889,181	731,133	1,080,913	1,038,908	1,065,052	885,574	1,091,281	
5,069,914	6,796,886	7,092,223	10,185,123	8,279,873	9,329,543	9,057,183	14,140,594	
3,294,551	3,408,885	4,354,009	4,398,312	3,954,482	4,070,949	5,134,475	5,960,105	4
9,415	8,421	65,379	72,409	15,823	11,202	67,873	76,693	5
91,919	86,392	131,343	110,802	335,007	293,311	322,697	337,534	6
220,962	240,488	308,200	327,068	967,390	848,714	891,531	1,018,232	
160,947	158,420	249,661	292,373	278,221	245,328	359,956	359,917	7
442,573	545,188	855,073	1,065,140	665,865	700,324	1,052,151	1,205,218	
36,046	20,441	19,829	21,495	143,827	117,747	105,207	75,005	8
24,557	17,459	21,486	20,059	139,831	101,037	86,103	64,225	
40,729	23,753	15,742	14,517	519,093	562,611	806,073	883,059	9
4,800,036	5,091,192	6,454,844	6,843,848	7,324,088	7,517,997	9,236,368	10,518,094	
182,753	192,789	197,844	204,006	209,199	211,729	259,820	266,511	10
356,843	308,414	313,798	297,936	422,974	344,121	384,458	371,122	
174,850	190,618	239,263	159,127	216,426	217,617	281,229	194,460	11
128,043	133,248	126,466	128,849	129,400	133,488	176,333	331,928	12
39,569	35,910	48,307	60,258	39,638	35,923	52,672	73,499	
1,039,039	1,072,134	770,246	727,661	1,301,637	1,382,657	1,721,453	2,295,163	13
193,426	229,361	179,249	165,094	221,596	269,145	298,813	362,926	
7,860,831	5,701,418	1,864,866	1,137,362	7,860,831	5,701,418	1,864,866	1,137,362	14
1,095,778	1,042,403	392,468	185,532	1,095,778	1,042,403	392,468	185,532	
2,674,040	1,185,959	832,049	2,792,761	2,680,574	1,190,626	834,003	2,883,016	15
293,463	205,578	159,697	336,795	295,727	207,424	162,624	349,318	
180,668	241,338	309,483	284,482	1,774,497	2,670,589	3,955,012	4,022,968	16
38,092	50,117	62,148	63,617	271,797	433,865	606,011	558,630	
5,435,930	7,771,161	7,705,176	7,713,592	5,436,730	7,771,761	7,710,576	7,718,322	17
651,271	1,174,478	980,837	890,686	651,375	1,174,568	981,627	891,279	
2,090,150	1,970,047	1,220,307	828,053	2,090,150	1,970,097	1,220,307	828,053	18
244,763	304,091	181,113	106,380	244,763	304,100	181,113	106,380	
308,088	309,742	411,124	457,839	361,967	310,704	412,638	458,620	19
96,165	108,080	152,431	163,646	128,245	108,517	153,203	164,018	
1,141,271	1,236,793	1,400,264	1,459,869	1,142,804	1,241,172	1,402,113	1,464,731	20
3,886,742	4,542,025	3,727,727	3,609,366	4,264,076	5,117,887	4,561,648	4,585,535	
23,853	73,930	59,057	104,079	198,341	7,029,084	7,190,267	15,626,007	21
10,567	29,118	24,945	43,003	74,289	2,649,108	2,548,856	5,532,910	
909,597	877,036	506,749	471,544	4,544,485	6,678,757	1,340,017	1,669,992	22
237,302	256,712	180,462	186,204	1,125,118	1,541,546	459,929	570,141	
44,757	29,111	51,870	35,710	104,292	71,871	109,987	76,608	23
3,890	15,565	20,919	34,657	118,901	134,244	262,256	251,480	24
4,778	14,074	21,991	28,526	87,731	123,951	199,183	248,563	
121,082	105,428	144,136	128,240	121,368	108,379	159,388	142,065	25
1,011,645	1,000,488	1,194,109	1,042,549	1,013,414	1,025,267	1,312,738	1,130,155	
4,974,916	3,398,201	1,532,820	453,101	4,975,028	3,400,501	1,537,314	453,938	26
638,128	493,889	196,717	48,508	638,151	494,173	197,636	48,676	
1,163,474	891,327	582,531	237,552	1,163,530	920,886	947,216	1,075,009	27
129,628	105,286	61,181	24,507	129,635	109,808	97,475	88,959	
2,044,192	1,911,425	1,773,633	1,456,375	2,330,979	2,156,898	2,249,550	1,931,457	

13.—Principal Imports into Canada for Consumption from United

No.	Items.		United Kingdom.			
			1925.	1926.	1927.	1928.[1]
	II. Animals and Animal Products—concluded.					
	Other animal products—					
1	Eggs in shell	doz.	10	48	333	85
		$	52	20	177	197
2	Eggs, n.o.p.	lb.	198,011	109,964	417	70,974
		$	35,201	17,047	191	17,752
3	Gelatine	lb.	328,264	355,546	355,384	332,724
		$	67,147	79,680	74,508	66,872
4	Glue, powdered or sheet	lb.	1,453,629	1,378,290	1,562,026	2,159,295
		$	123,249	126,128	149,751	224,431
5	Glue, other	$	20,210	8,954	9,846	5,908
6	Sausage casings	$	32,168	41,342	143,705	29,363
	Total Animals and Animal Products[2]	$	**4,653,919**	**5,960,932**	**5,404,629**	**6,090,435**
	III. Fibres and Textiles.					
	Cotton—					
7	Raw	lb.	25,469	34,335	1,059	92,266
		$	2,582	4,591	311	11,221
	Yarns, thread and cordage—					
8	Cordage and twine	lb.	215,948	219,890	213,963	231,145
		$	80,998	73,607	56,121	65,381
9	Crochet and knitting	lb.	8,984	5,655	6,285	3,156
		$	16,733	12,694	11,555	5,738
10	Sewing in hanks	lb.	388,099	534,711	435,271	415,088
		$	387,406	548,290	357,955	312,182
11	Sewing, on spools	$	26,563	33,872	15,531	11,822
12	Yarn, No. 40 and finer	lb.	827,901	789,393	854,864	876,604
		$	793,264	775,190	662,113	640,295
13	Knitting yarn	lb.	65,175	89,893	97,181	169,101
		$	42,171	50,082	49,912	114,392
	Fabrics—					
14	Canton flannel, etc.	yd.	1,077,391	1,227,862	731,330	563,567
		$	200,968	197,772	116,137	98,356
15	Damask of cotton, table cloths, etc.	$	242,751	219,139	218,860	155,418
16	Duck over 8 oz. per sq. yd.	yd.	191,434	104,561	87,588	25,103
		$	190,462	93,561	60,486	24,054
17	Dyed fabrics	yd.	28,036,521	21,803,705	23,145,648	18,418,949
		$	7,848,937	5,894,685	5,374,105	3,948,931
18	Printed, n.o.p.	yd.	5,280,617	4,788,546	4,619,602	5,470,924
		$	1,193,998	1,131,837	1,008,418	1,147,180
19	Grey, unbleached	yd.	5,404,667	7,192,716	7,717,028	9,329,995
		$	632,854	743,024	623,139	757,359
20	Jeans, etc., for corsets	yd.	95,577	2,861	4,976	3,898
		$	25,961	1,300	1,514	1,349
21	Plain shirtings, etc.	yd.	1,191,476	1,268,949	579,946	771,047
		$	199,272	214,398	104,020	123,445
22	Towelling in the web	yd.	2,094,937	2,073,239	2,281,942	1,835,384
		$	261,293	257,226	255,449	189,329
23	Velveteens	yd.	737,145	744,398	839,227	1,162,624
		$	519,293	468,299	561,466	711,028
24	Voiles	yd.	743,474	540,563	1,090,103	597,013
		$	125,830	80,393	169,094	85,225
25	White or bleached	yd.	4,839,706	3,903,977	4,014,138	4,890,715
		$	1,052,688	772,860	721,853	800,256
26	Bed quilts	$	399,238	389,031	347,243	284,161
27	Handkerchiefs	$	821,421	870,698	988,252	919,679
28	Towels	$	521,937	515,398	573,100	494,725
29	Embroideries	$	53,418	27,995	21,847	28,786
30	Lace, net and manufactures of	$	1,498,242	1,343,107	1,278,892	1,115,051
	Wearing apparel—					
31	Socks and stockings	doz. pr.	36,879	18,776	19,806	19,864
		$	113,442	60,245	53,281	48,841
32	Undershirts and drawers	$	12,109	22,730	12,756	17,036
	Total cotton[2]	$	18,697,122	16,128,699	15,133,478	13,796,837

[1] Subject to revision. [2] Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925–1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
2,564,551	3,266,508	3,070,762	939,983	2,695,047	3,341,591	3,120,940	1,000,278	1
917,100	952,608	1,301,410	449,894	945,819	977,127	1,317,484	476,605	
413,383	54,707	372,651	793,319	1,171,951	1,370,468	1,691,359	1,625,956	2
90,729	15,940	86,430	197,431	215,480	242,470	329,119	402,790	
253,911	355,697	227,298	257,573	952,372	1,164,857	1,180,306	1,350,782	3
181,011	267,298	171,071	215,062	364,075	480,576	413,549	472,630	
626,309	697,489	473,949	580,000	2,397,041	2,229,772	2,310,742	3,245,594	4
72,218	80,966	64,399	77,778	226,709	225,467	248,475	367,734	
51,827	73,178	63,136	62,354	72,326	82,898	73,358	68,450	5
135,139	108,275	215,407	204,498	841,510	1,309,731	1,955,148	2,121,092	6
28,588,214	**32,954,470**	**35,437,384**	**40,582,857**	**41,491,969**	**49,185,558**	**53,214,135**	**65,790,021**	
100,700,362	135,426,812	149,666,430	146,132,355	100,879,251	135,573,803	149,743,841	146,224,621	7
24,903,707	29,425,426	20,925,417	25,616,881	24,938,251	29,461,717	20,934,964	25,628,102	
78,497	194,094	379,555	121,325	298,463	422,081	602,185	363,142	8
39,344	92,044	168,460	45,457	122,239	170,054	227,055	113,745	
21,274	14,094	13,059	6,370	137,547	88,963	132,924	86,466	9
19,918	20,077	21,171	11,386	202,270	228,245	320,932	192,770	
244,347	302,331	298,016	293,293	632,446	837,202	733,287	708,381	10
259,365	307,642	268,673	282,658	646,771	856,437	626,628	594,840	
60,262	56,457	77,957	49,693	89,741	92,516	99,625	69,220	11
1,508,090	1,942,456	1,927,598	1,907,128	2,335,991	2,732,069	2,782,507	2,783,752	12
1,376,447	1,804,495	1,573,735	1,611,680	2,169,711	2,580,014	2,235,919	2,252,070	
306,071	238,082	374,514	464,098	371,246	331,293	478,707	645,980	13
166,916	125,992	144,685	206,292	209,087	178,528	199,464	327,065	
342,009	686,118	1,176,618	768,899	1,420,624	1,914,304	1,919,069	1,335,961	14
59,507	93,843	124,038	91,898	260,871	291,735	241,968	191,514	
51,802	44,404	37,252	41,975	431,508	426,406	420,181	287,334	15
551,020	693,636	892,136	866,488	742,554	798,197	979,724	891,591	16
550,615	442,913	501,894	397,472	741,124	536,474	562,380	421,526	
11,784,117	12,426,388	16,576,070	15,888,547	41,578,118	35,992,827	42,342,297	36,917,801	17
2,480,200	2,896,125	3,371,284	3,021,281	10,955,951	9,315,132	9,636,932	7,942,071	
2,931,401	3,416,892	4,961,038	6,154,642	8,400,223	8,389,887	9,822,617	11,989,276	18
594,002	693,331	829,958	1,057,622	1,839,313	1,871,806	1,896,147	2,308,691	
9,856,544	13,166,071	13,449,321	19,359,431	15,265,790	20,361,632	21,181,037	28,772,857	19
1,072,698	1,337,908	1,194,215	1,816,804	1,707,241	2,081,364	1,823,372	2,603,026	
418,572	454,923	387,604	255,592	515,572	459,280	393,482	261,694	20
148,956	142,234	104,327	72,129	176,224	144,723	106,630	74,135	
342,532	458,166	835,742	1,242,995	1,574,145	1,734,386	1,454,517	2,047,315	21
56,530	66,937	120,904	189,534	266,823	283,917	231,806	318,944	
175,261	245,342	295,633	280,249	2,274,726	2,326,382	2,589,564	2,124,080	22
24,319	38,051	35,618	34,564	286,379	296,789	292,868	225,300	
113,567	106,391	123,410	241,001	1,034,426	1,013,695	1,149,052	1,711,505	23
75,745	76,009	82,311	147,361	776,725	696,043	812,988	1,171,534	
468,681	406,848	312,871	210,902	1,271,493	959,145	1,419,738	819,025	24
51,602	34,338	39,782	25,737	188,389	117,665	213,040	113,467	
5,513,614	5,515,637	6,054,279	6,379,586	10,589,008	9,616,237	10,247,761	11,537,422	25
866,759	833,180	747,978	724,908	1,975,393	1,649,035	1,506,491	1,578,627	
98,602	136,505	178,463	150,118	511,918	544,897	552,850	455,004	26
16,574	11,482	15,937	22,290	1,233,683	1,232,725	1,392,295	1,385,768	27
249,746	237,897	232,001	295,056	777,235	764,560	824,150	817,648	28
56,424	45,470	24,120	36,840	389,081	243,115	188,473	209,749	29
391,454	415,487	407,286	344,842	2,520,280	2,328,128	2,234,720	2,043,847	30
381,751	477,102	543,089	494,107	430,594	512,261	599,927	561,441	31
671,804	783,226	893,943	764,650	804,663	876,336	1,004,727	871,870	
140,468	101,698	77,866	73,844	176,347	164,345	169,738	135,979	32
37,444,133	**43,599,436**	**35,525,792**	**40,669,125**	**59,344,360**	**62,474,874**	**54,149,009**	**58,332,542**	

13.—Principal Imports into Canada for Consumption from United

No.	Items.		United Kingdom.			
			1925.	1926.	1927.	1928.[1]
	III. Fibres and Textiles—con.					
	Flax, hemp and jute—					
1	Hemp, dressed or undressed	cwt.	–	62	–	–
		$	–	511	–	–
2	Jute or hemp yarn, for weaving, etc	lb.	2,674,035	3,229,091	2,760,448	2,990,853
		$	262,191	427,584	338,107	321,251
3	Yarn, linen for towels, etc	lb.	269,777	226,543	215,662	241,061
		$	132,836	105,284	91,105	102,247
4	Thread, linen, n.o.p	lb.	253,946	230,247	278,665	248,742
		$	368,445	343,115	391,898	325,935
5	Uncoloured damask or linen in the piece, tablecloths, etc	$	943,757	918,532	1,061,271	1,115,950
6	Linen, hemp, etc., fabrics, n.o.p	$	1,773,732	1,584,381	1,730,674	1,884,392
7	Jute cloth or canvas, from the loom	yd.	3,831,687	4,629,209	4,524,505	10,893,261
		$	366,044	464,666	400,577	964,157
8	Jute cloth or canvas, cropped, calendered,	yd.	9,567,493	11,153,213	9,491,290	10,754,515
		$	1,120,655	1,479,196	1,150,019	1,092,403
9	Tailors' hollands and towelling in the web.	yd.	3,001,085	3,321,851	4,197,729	2,914,277
		$	407,891	450,716	511,782	380,096
	Total flax, hemp and jute[2]	$	5,513,286	5,025,088	6,005,792	6,653,391
	Silk—					
10	Raw or as reeled from cocoon	lb.	–	250	550	367
		$	–	1,103	2,645	2,191
11	In the gum or spun for underwear	lb.	27,121	36,463	25,938	27,555
		$	81,236	110,142	87,862	85,385
	Fabrics—					
12	For neckties	$	26,157	25,564	28,811	28,571
13	Ribbons	$	121,648	87,115	71,034	46,459
14	Velvets	yd.	498,248	652,192	701,951	650,586
		$	624,121	873,936	923,082	909,359
15	Other	$	1,016,533	896,256	744,866	532,582
16	Socks and stockings	doz. pr.	4,961	4,178	4,735	4,219
		$	42,155	36,114	36,477	33,967
17	Other apparel	$	257,244	286,582	356,625	412,005
	Total silk[2]	$	2,330,791	2,506,452	2,446,082	2,280,572
	Wool—					
18	Raw	lb.	6,681,245	5,066,442	6,145,684	6,758,498
		$	3,425,004	2,354,810	2,430,063	2,848,722
19	Worsted tops, n.o.p	lb.	4,316,738	5,085,179	6,694,809	6,686,377
		$	2,678,881	3,182,045	3,721,005	4,106,622
20	Noils	lb.	600,175	470,941	331,055	404,514
		$	413,794	300,078	140,110	188,665
21	Waste, garnetted	lb.	138,813	348,295	333,096	338,197
		$	44,009	94,125	75,225	85,060
22	Yarn, 30c. lb. or over for mfrs	lb.	2,455,933	2,436,202	3,003,125	3,031,160
		$	3,057,075	3,198,294	3,351,615	3,154,311
23	Yarn, other	lb.	276,232	292,880	372,897	756,940
		$	398,454	422,253	486,774	955,357
24	Carpets, in roll	yd.	198,032	139,511	212,564	173,036
		$	230,522	207,246	299,699	293,212
25	Carpets, other	$	913,111	814,610	952,768	1,033,156
	Fabrics—					
26	Flannels, plain	yd.	870,123	666,347	652,451	427,579
		$	388,019	249,249	285,831	179,195
27	Lustres, mohairs, alpacas, etc	yd.	1,945,205	1,945,410	1,853,489	1,096,880
		$	1,045,794	1,089,624	985,000	598,022
28	Overcoatings	yd.	322,538	241,580	249,470	293,149
		$	407,027	363,985	348,172	383,738
29	Tweeds	yd.	3,269,625	3,261,378	4,025,983	3,478,905
		$	2,945,970	3,108,563	3,757,034	3,286,378
30	Women's dress goods, undyed	sq. yd.	5,505,973	3,341,812	3,171,858	2,402,955
		$	2,323,011	1,479,286	1,288,769	868,408
31	Worsteds, serges, coatings, etc	yd.	8,464,631	8,162,807	8,867,665	8,573,388
		$	11,158,395	11,184,906	11,755,726	10,927,901
32	Blankets	pair	136,893	109,306	127,238	159,036
		$	549,656	548,714	578,157	750,225

[1] Subject to revision. [2] Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
245,176	274,591	110,816	96,020	249,032	281,639	123,426	99,503	1
2,139,423	3,222,650	1,329,485	1,075,207	2,173,280	3,923,472	1,458,768	1,106,248	
830,621	579,594	623,914	757,529	3,632,392	4,044,659	3,603,468	3,956,563	2
116,271	113,438	120,104	129,696	405,733	608,927	513,191	497,747	
26,393	57,886	29,786	57,272	320,784	317,519	371,777	371,627	3
11,631	25,698	12,044	25,312	158,894	146,813	155,866	163,608	
4,319	4,509	2,854	6,224	261,384	250,242	300,966	269,794	4
5,476	6,542	4,357	7,901	376,421	367,078	418,716	342,757	
8,846	8,956	20,139	8,509	1,034,973	1,000,369	1,172,535	1,313,057	5
251,328	345,627	338,478	252,948	2,245,725	2,140,201	2,420,387	2,588,951	6
17,240	390,563	312,676	887,173	4,646,249	6,178,007	6,846,398	23,273,144	7
1,438	35,227	26,513	81,478	384,914	534,907	525,647	1,838,086	
11,108,271	10,963,163	15,186,938	10,957,830	81,018,495	86,906,704	82,510,494	78,547,096	8
979,175	1,087,526	1,188,767	903,665	6,270,141	7,825,439	6,364,957	6,024,732	
6,153	2,921	6,911	6,353	3,030,800	3,343,887	4,228,285	2,972,370	9
826	592	828	802	413,787	454,909	518,136	388,071	
3,784,630	5,075,790	3,316,038	2,749,804	13,892,860	16,887,193	14,255,758	15,122,116	
276,362	470,416	589,964	710,238	361,403	529,446	679,923	938,459	10
1,698,441	3,076,427	3,532,101	3,856,327	2,189,013	3,448,502	4,065,514	5,073,511	
8,707	11,095	8,025	7,216	37,037	51,462	43,276	44,763	11
46,058	67,568	46,911	39,463	132,706	194,247	177,958	155,963	
376,963	641,442	671,800	371,038	684,573	1,028,334	1,140,228	1,457,639	12
334,629	272,347	255,105	177,980	1,340,721	1,112,772	1,373,312	925,859	13
21,737	37,909	36,276	21,522	996,230	1,177,406	1,312,029	1,319,765	14
49,064	56,449	45,453	36,929	1,216,362	1,462,957	1,627,795	1,671,209	
1,058,095	2,032,793	1,812,066	1,764,874	11,306,820	14,758,707	17,200,446	15,807,524	15
44,037	71,456	68,537	69,298	50,479	77,266	79,241	79,145	16
437,396	636,756	616,816	537,043	491,898	691,761	706,340	621,120	
914,819	1,048,685	1,056,523	1,400,158	2,090,791	2,331,794	3,130,677	3,377,911	17
5,100,616	8,025,223	8,297,660	8,603,718	19,875,266	25,541,363	30,077,476	29,963,007	
5,581,043	5,212,137	5,473,300	2,757,188	14,362,890	13,434,426	16,423,421	13,895,679	18
2,500,799	2,061,251	1,781,169	885,731	6,867,497	5,658,413	5,655,760	5,128,433	
253,203	144,736	271,646	580,090	5,164,151	5,572,309	7,527,553	7,688,373	19
321,151	87,899	144,319	298,470	3,553,352	3,631,719	4,410,063	4,831,288	
57,321	42,046	28,879	35,667	658,961	569,772	359,934	444,747	20
33,842	21,179	15,898	20,633	449,260	362,700	156,008	211,081	
106,168	85,983	105,379	13,298	244,981	434,278	440,795	351,495	21
33,369	19,785	14,357	3,463	77,378	113,910	89,976	88,523	
11,035	534	6,782	8,163	2,567,859	2,508,914	3,188,375	3,185,119	22
19,942	1,114	18,391	17,261	3,227,000	3,293,093	3,614,888	3,365,915	
11,435	39,391	16,055	15,172	311,598	338,480	392,962	788,934	23
13,079	30,237	10,152	13,884	443,827	460,369	503,231	990,320	
21,172	10,790	6,888	5,444	225,230	159,224	235,022	216,377	24
12,974	12,274	7,722	9,213	252,521	233,454	329,036	357,623	
166,703	131,203	147,565	178,701	1,633,458	1,559,637	1,852,138	2,448,769	25
4,072	2,322	7,819	9,826	919,051	686,322	774,917	603,238	26
1,294	2,473	5,403	4,891	413,973	261,911	341,553	257,442	
2,182	27,781	10,248	4,072	1,948,369	1,976,024	1,885,359	1,103,599	27
1,996	22,259	9,990	5,935	1,048,999	1,113,949	1,005,499	605,360	
5,995	1,281	170	371	331,175	247,191	266,184	316,227	28
13,820	3,649	218	613	427,812	377,536	395,464	435,256	
13,683	7,860	8,424	17,660	3,327,760	3,321,069	4,218,552	3,812,941	29
22,528	16,829	15,519	24,833	3,029,582	3,194,626	4,029,996	3,772,336	
65	–	–	–	7,604,577	5,254,415	5,231,485	4,163,148	30
20	–	–	–	3,572,176	2,434,628	2,225,133	1,566,806	
146,481	109,110	84,914	38,144	9,757,954	9,461,372	10,797,625	10,712,927	31
194,798	129,436	142,362	71,062	12,684,360	12,806,128	14,140,784	13,437,564	
11,262	11,302	11,401	11,082	148,727	125,429	143,359	172,651	32
48,335	45,456	39,099	43,389	599,806	601,110	631,154	800,390	

13.—Principal Imports into Canada for Consumption from United

No.	Items.	United Kingdom.			
		1925.	1926.	1927.	1928.[1]
	III. Fibres and Textiles—concluded.				
	Wool—concluded—				
	Wearing apparel—				
1	Knitted goods, n.o.p. $	603,357	690,761	792,583	820,330
2	Socks and stockings doz. pr.	518,762	526,373	561,157	534,134
	$	2,230,284	2,485,562	2,487,868	2,268,070
3	Women's and children's outside garments $	219,247	220,625	260,660	195,382
4	Felt, pressed lb.	82,565	112,218	297,584	104,353
	$	56,404	75,076	202,690	37,933
	Total wool[2] $	36,978,156	36,304,734	39,140,301	37,364,117
	Artificial silk (rayon)—				
5	Yarns lb.	1,318,411	920,261	156,630	55,190
	$	1,895,022	1,486,124	259,124	83,899
6	Tops and waste lb.	3,287	26,889	76,289	8,728
	$	2,999	16,799	29,160	1,734
7	Fabrics and manufactures $	667,039	1,439,752	2,425,944	3,561,826
	Other fibres and their products—				
8	Manila and sisal grass cwt.	23,963	26,133	7,730	6,057
	$	202,901	262,281	79,285	48,791
9	Binder twine cwt.	10,200	65	2,060	4,549
	$	230,166	946	29,768	55,633
	Total other fibres and their products[2] $	489,138	228,486	189,692	179,268
	Mixed textile products—				
10	Rags cwt.	110,700	123,336	165,746	133,108
	$	370,445	363,804	341,846	275,299
11	Fish lines and nets $	912,236	1,036,615	1,329,897	1,347,762
12	Cordage, n.o.p., and manufactures of $	282,363	295,799	351,109	350,328
13	Oilcloth, etc sq. yd.	538,853	582,787	659,562	693,108
	$	443,404	442,125	530,710	517,801
14	Oiled silk, tape, rubbered, etc $	189,831	231,585	308,898	419,005
15	Curtains and shams $	308,841	387,701	482,272	574,895
16	Plush, n.o.p. yd.	319,083	276,745	445,639	489,845
	$	506,416	426,871	682,030	793,273
	Wearing apparel—				
17	Braids of straw, etc., for hats $	21,088	10,927	27,091	11,369
18	Corsets No.	1,490	2,150	1,201	1,195
	$	2,701	3,507	3,718	2,749
19	Hat materials, n.o.p. $	69,023	132,945	197,558	291,555
20	Hats, felt $	401,150	515,531	630,927	725,291
21	Hats, straw $	294,606	257,879	280,425	155,031
22	Hats, caps, n.o.p. $	198,715	299,720	478,374	558,883
23	Gloves (textile) $	465,841	535,577	549,812	588,921
24	Knitted goods, n.o.p. $	561,563	455,235	490,929	474,822
	Total mixed textile products[2] $	5,552,939	5,927,513	7,122,591	7,542,532
	Total Fibres and Textiles[2] $	**72,126,492**	**70,163,647**	**72,752,164**	**71,464,176**
	IV. Wood, Wood Products and Paper.				
25	Wood, unmanufactured or partially manufactured—				
	Railroad ties No	–	–	–	–
	$	–	–	–	–
	Saw-mill products—				
	Lumber, dressed on one side—				
26	Cherry, chestnut, and hickory M ft.	–	–	–	–
	$	–	–	–	–
27	Gumwood M ft.	–	–	2	4
	$	–	–	208	486
28	Oak M ft.	–	–	–	–
	$	–	–	–	–
29	Pitch pine M ft.	–	16	–	–
	$	–	434	–	–
30	Whitewood M ft.	–	–	–	19
	$	–	–	–	8,000
31	Lumber, dressed on one side and edges M ft.	1	–	12	–
	$	87	–	850	–
32	Veneers $	2,860	3,676	1,484	2,874
	Total wood, unmanufactured or partially manufactured[2] $	15,344	20,926	16,617	34,686

[1] Subject to revision. [2] Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
18,571	32,394	41,250	90,724	655,556	769,394	967,998	1,092,229	1
7,860	17,301	18,734	15,443	527,384	544,665	584,796	553,090	2
24,419	63,934	75,996	51,254	2,261,060	2,558,446	2,598,324	2,345,285	
459,023	391,971	240,909	185,979	727,369	688,337	626,645	523,986	3
156,527	173,004	220,065	174,023	413,943	507,166	816,278	483,950	4
88,487	95,259	97,425	75,715	247,957	311,076	461,018	240,665	
4,699,873	3,847,595	3,389,549	2,676,191	47,614,903	46,036,182	50,575,573	48,832,356	
137,826	43,159	108,028	138,585	1,684,811	1,689,730	1,516,448	1,563,020	5
241,252	68,640	222,067	350,587	2,490,867	2,553,403	1,850,385	1,733,546	
70,928	99,554	449,646	211,714	85,595	268,725	542,769	228,123	6
40,014	58,604	158,771	43,629	51,533	186,943	196,318	50,580	
149,950	373,038	565,396	818,028	1,180,500	2,418,901	4,255,283	6,076,592	7
215,956	349,113	440,105	479,920	255,317	439,699	519,807	524,124	8
1,841,427	3,505,346	4,225,868	3,829,485	2,183,277	4,347,116	5,030,900	4,255,080	
247,357	391,845	180,610	69,119	265,766	476,299	282,814	194,647	9
2,001,827	5,448,706	2,654,850	866,162	3,227,647	6,710,477	4,076,338	2,294,516	
4,945,182	9,135,166	7,116,163	5,005,464	5,796,413	11,459,278	9,718,768	7,310,586	
238,939	200,157	211,687	294,641	371,828	345,098	398,445	454,776	10
960,334	1,091,781	877,156	965,036	1,390,657	1,580,321	1,365,070	1,419,980	
1,207,377	1,254,238	1,348,096	1,185,898	2,189,483	2,405,002	2,860,406	2,739,453	11
208,341	178,098	149,121	117,748	505,572	494,106	514,172	489,383	12
572,851	507,304	729,672	792,420	1,111,878	1,091,213	1,389,943	1,487,844	13
255,562	273,359	248,638	271,531	699,069	716,325	779,848	790,516	
683,795	909,757	928,957	983,012	884,153	1,151,298	1,247,717	1,412,104	14
132,429	86,576	89,747	109,504	543,304	560,560	678,829	847,674	15
95,858	162,996	237,741	251,383	526,863	520,948	808,989	1,099,483	16
164,175	275,031	402,276	376,007	816,821	811,354	1,263,851	1,615,346	
229,258	234,784	228,849	106,814	490,981	504,440	584,079	283,591	17
83,694	82,300	89,566	85,773	86,200	85,887	93,383	88,829	18
203,386	201,573	232,282	191,378	208,573	208,243	240,401	198,869	
591,968	576,998	634,348	454,861	759,635	801,781	990,225	967,461	19
312,127	312,254	323,922	351,741	1,000,885	1,228,103	1,389,024	1,581,944	20
469,936	406,173	241,781	144,598	823,615	749,943	644,860	436,472	21
650,775	696,506	536,672	450,495	917,832	1,094,640	1,135,201	1,196,606	22
66,475	144,399	83,830	113,363	1,034,378	1,279,584	1,401,375	1,587,136	23
229,189	200,772	163,429	182,948	949,184	824,954	932,404	864,051	24
7,596,945	8,921,803	8,334,081	8,513,975	15,194,055	17,203,694	18,505,181	19,574,489	
64,002,595	**79,105,295**	**66,925,517**	**69,430,521**	**165,440,757**	**184,761,831**	**183,583,931**	**186,995,814**	
581,097	614,228	435,706	691,801	581,097	614,228	435,706	691,801	25
755,877	749,250	453,122	740,838	755,877	749,250	453,122	740,838	
7,407	8,766	6,691	8,961	7,407	8,766	6,691	8,961	26
522,186	620,117	404,556	552,559	522,186	620,117	404,556	552,559	
10,459	16,382	20,319	17,143	10,480	16,550	20,372	17,274	27
456,809	855,114	1,047,827	861,127	458,654	875,027	1,052,767	875,174	
33,574	35,575	42,336	45,963	33,591	35,667	42,339	45,964	28
2,237,777	2,404,979	2,896,503	2,947,250	2,243,870	2,412,876	2,896,885	2,947,426	
25,004	21,600	33,502	31,728	25,004	21,616	33,502	31,728	29
957,587	819,723	1,273,097	1,077,036	957,587	820,157	1,273,119	1,077,036	
3,811	5,978	7,718	8,575	3,811	5,978	7,718	8,594	30
269,619	345,344	420,694	420,714	269,619	345,344	420,694	428,714	
3,697	4,562	7,176	7,363	3,707	4,641	7,216	7,391	31
168,986	223,715	345,147	368,013	169,299	228,724	346,680	368,876	
460,034	639,748	768,105	781,724	462,894	643,424	769,713	784,598	32
9,177,287	10,259,596	12,852,320	13,926,666	9,341,517	10,473,692	13,104,109	14,287,475	

13.—Principal Imports into Canada for Consumption from United

No.	Items.		United Kingdom.			
			1925.	1926.	1927.	1928.[1]
	IV. Wood, Wood Products and Paper—concluded.					
	Wood, manufactured—					
1	Barrels, empty	No.	2,312	2,156	2,799	6,492
		$	19,162	20,606	24,813	46,641
2	Staves of oak	M	–	–	–	–
		$	–	–	–	–
3	Other cooperage	$	136	122	194	142
4	Corks	lb.	48,274	47,252	65,842	52,499
		$	55,935	52,560	69,513	52,511
5	Other cork mfrs	$	4,859	4,776	6,142	7,903
6	Turned and carved wood	$	11,953	16,754	21,026	19,807
7	Wood pulp	cwt.	8	13	–	3
		$	51	68	–	16
8	Doors	$	–	–	–	–
9	Fibre, kartavert, and manufactures of	$	2,104	1,112	1,253	3,991
10	Furniture	$	153,781	168,042	250,435	388,540
	Total wood, manufactured[2]	$	405,724	452,812	548,776	691,626
	Total wood and wood products[2]	$	421,068	473,738	565,393	726,312
	Paper—					
11	Newsboard	lb.	74,914	86,966	82,178	59,193
		$	7,975	6,843	6,041	5,038
12	Strawboard	lb.	6,601	10,184	73,673	25,711
		$	211	320	1,560	751
13	Printing paper	$	185,420	164,128	182,577	228,981
14	Wrapping paper	lb.	324,623	180,052	313,801	236,588
		$	36,371	16,226	26,918	21,462
15	Writing paper and stationery, n.o.p.	$	78,984	95,024	133,609	115,215
16	Envelopes	M	11,749	11,542	9,223	6,572
		$	34,567	31,186	27,759	25,138
17	Wall paper	roll	336,244	375,429	525,780	581,461
		$	82,437	85,487	101,801	129,730
18	Paper boxes and containers	$	15,214	19,674	20,916	19,773
	Total paper[2]	$	1,164,357	1,137,108	1,360,544	1,451,826
	Books and printed matter—					
19	Newspapers and magazines	$	9,280	7,986	9,942	11,591
20	Photographs, chromos, engravings, prints	$	110,143	122,355	141,276	140,044
21	Advertising pamphlets, cards, etc	lb.	500,006	473,836	321,321	269,900
		$	200,442	193,451	145,393	104,656
22	Labels, tags, tickets, etc	$	52,001	62,622	61,036	61,180
23	Bibles, hymn books, etc	$	143,251	158,198	189,834	193,124
24	Text books	$	493,123	447,466	473,528	512,489
	Total books and printed matter[2]	$	1,852,676	1,862,818	1,992,161	2,182,210
	Total Wood, Wood Products and Paper[2]	$	**3,438,101**	**3,473,664**	**3,918,098**	**4,360,348**
	V. Iron and Its Products.					
25	Iron ore	ton	–	–	–	–
		$	–	–	–	–
	Pigs, ingots, blooms and billets—					
26	Pig iron	ton	6,706	4,077	5,275	6,455
		$	133,847	77,125	89,560	118,356
27	Ferro-silicon and ferro-manganese	cwt.	133,904	68,263	42,857	63,626
		$	448,107	267,132	135,454	209,455
	Total pigs, ingots, blooms and billets[2]	$	609,905	362,871	240,252	364,041
28	Scrap iron or steel	$	4,825	5	–	–
	Castings and forgings—					
29	Axles, parts and blanks	$	15,323	14,520	8,528	5,708
30	Locomotive and car wheel tires	cwt.	118,953	64,526	63,698	115,051
		$	542,092	304,175	297,400	539,358
	Total castings and forgings[2]	$	585,085	376,393	333,232	596,665

[1] Subject to revision. [2] Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
126,608	195,176	214,731	179,788	132,090	199,764	221,763	189,305	1
223,422	393,368	368,056	345,035	250,729	421,968	404,522	400,936	
5,883	6,049	5,929	9,945	5,883	6,049	5,929	9,950	2
350,248	309,509	395,998	886,258	350,248	309,509	395,998	886,338	
130,135	230,258	220,536	250,970	130,343	231,293	220,844	251,261	3
36,685	54,278	62,166	82,516	315,759	324,416	423,516	485,568	4
30,364	40,037	52,205	69,544	174,578	186,690	263,033	317,722	
224,221	318,434	276,768	380,362	323,631	434,306	519,843	714,046	5
744,327	884,881	898,774	697,228	761,865	905,716	924,394	725,621	6
466,737	426,287	464,433	477,941	497,857	429,962	464,455	479,099	7
1,366,367	1,150,509	1,257,578	1,227,305	1,422,372	1,157,362	1,257,635	1,230,161	
314,338	358,135	391,354	546,069	314,338	358,135	391,354	546,069	8
334,520	320,254	370,750	327,568	339,892	323,365	374,502	335,509	9
972,776	941,914	1,476,208	1,656,660	1,313,723	1,291,183	1,957,739	2,271,777	10
6,899,535	7,334,037	8,333,935	8,942,740	7,953,761	8,376,861	9,757,585	10,712,954	
16,076,822	17,593,633	21,186,255	22,869,406	17,295,278	18,850,553	22,861,694	25,000,429	
8,845,614	9,691,919	7,394,849	10,303,114	8,928,897	9,821,859	7,484,656	10,410,855	11
373,418	388,088	356,398	457,437	381,796	396,090	362,911	464,731	
11,552,440	11,899,366	19,026,112	15,625,774	11,604,191	12,016,435	19,209,496	17,101,236	12
288,093	304,015	499,156	403,947	289,009	306,273	502,695	431,601	
408,658	310,732	429,285	538,555	603,292	489,121	632,867	790,965	13
6,756,429	6,769,516	6,681,919	12,531,582	8,609,663	8,153,071	9,641,227	14,961,300	14
318,139	287,973	325,429	473,811	437,790	373,153	491,834	611,514	
115,126	144,215	230,774	220,622	212,948	270,690	419,576	385,957	15
54,490	54,066	51,289	48,185	69,489	67,719	63,748	59,895	16
112,811	103,470	107,844	113,970	149,394	142,779	145,527	148,891	
2,462,299	1,993,654	2,338,853	3,437,066	2,846,266	2,443,203	2,919,378	4,160,417	17
376,510	334,679	358,195	439,312	478,653	447,219	481,035	601,127	
932,445	1,079,438	1,101,045	1,203,562	967,492	1,123,620	1,145,757	1,261,325	18
7,133,053	7,343,650	8,821,928	9,167,711	9,095,066	9,403,738	11,359,582	11,918,454	
2,758,566	2,980,896	3,252,607	2,970,786	2,775,883	2,991,993	3,266,974	2,989,406	19
748,220	826,988	1,297,058	1,064,548	917,280	1,012,797	1,542,937	1,322,302	20
3,835,899	4,494,009	5,034,802	5,598,118	4,395,428	5,045,113	5,409,408	5,935,204	21
1,694,270	1,863,260	2,094,444	2,594,827	1,913,751	2,081,563	2,259,953	2,723,885	
300,136	323,376	300,214	264,508	365,198	404,832	381,497	339,074	22
132,971	151,208	174,880	169,674	417,007	437,107	511,468	509,547	23
466,530	478,967	560,152	588,116	1,023,191	985,436	1,100,308	1,198,371	24
9,443,716	9,777,681	11,114,209	11,955,111	11,795,039	12,148,805	13,741,022	14,832,041	
32,653,591	**34,715,231**	**41,122,392**	**43,992,228**	**38,185,383**	**40,403,090**	**47,982,298**	**51,750,924**	
685,990	692,030	984,173	1,010,223	911,586	1,053,593	1,445,504	1,491,234	25
1,798,719	1,607,739	2,242,208	2,227,040	2,333,107	2,020,285	2,835,159	2,889,768	
19,685	21,984	26,324	39,949	27,509	27,779	34,569	48,415	26
385,070	410,509	486,458	658,589	539,538	516,238	623,182	809,372	
19,832	7,796	6,089	12,133	158,427	83,559	58,217	80,598	27
98,165	114,737	139,674	117,942	567,970	413,824	333,440	367,682	
958,632	891,247	1,081,746	1,363,959	1,757,326	1,568,112	1,634,048	2,051,739	
466,356	554,135	906,180	1,418,993	496,862	671,435	926,361	1,440,575	28
2,057,925	3,499,370	2,629,340	1,823,134	2,073,248	3,513,890	2,638,166	1,828,892	29
103,061	79,988	122,604	107,866	222,034	144,700	186,598	223,077	30
440,214	352,411	523,705	460,144	982,391	657,639	822,394	1,000,301	
3,304,671	4,713,863	4,417,940	3,694,158	3,890,150	5,091,744	4,764,733	4,296,176	

13.—Principal Imports into Canada for Consumption from United

No.	Items.		United Kingdom. 1925.	1926.	1927.	1928.[1]
	V. Iron and Its Products—continued.					
	Rolling mill products—					
1	Band and hoop	cwt.	135,364	202,082	141,586	146,918
		$	551,006	658,833	451,710	473,283
	Bars and rails—					
2	Railway rails	ton	151	35	6	18
		$	5,366	2,518	272	73
3	Other bars and rails	cwt.	203,957	110,347	116,159	143,540
		$	821,446	668,651	825,243	874,461
	Plates and sheets—					
4	Boiler plate	cwt.	1,746	–	587	46
		$	4,201	–	1,077	93
5	Canada plates	cwt.	92,945	90,786	66,886	87,745
		$	390,939	338,320	255,491	337,057
6	Tinned plates	cwt.	695,918	865,596	367,546	478,286
		$	3,682,006	4,266,014	1,850,503	2,340,105
7	Plates not less than 30 in. by ¼ in. n.o.p.	cwt.	78,767	11,260	6,674	25,407
		$	146,459	19,266	10,652	42,792
8	Sheets, No. 14 gauge and thinner, n.o.p.	cwt.	138,911	99,214	77,168	124,800
		$	489,900	337,816	251,673	401,423
9	Galvanized	cwt.	264,771	197,814	153,189	88,347
		$	1,270,569	876,835	650,507	363,357
10	Skelp for pipe	cwt.	71,212	56,296	4,373	112,604
		$	184,057	156,594	15,324	296,698
11	Other plates and sheets	cwt.	61,015	29,904	14,036	21,783
		$	146,221	74,550	31,464	46,537
12	Rods	cwt.	69,750	36,264	–	13,054
		$	94,148	47,772	–	16,316
13	Flat eye-bar blanks	$	5,616	–	–	–
14	Bridges	$	194,034	57,525	–	14,569
15	Other structural iron	cwt.	219,096	79,743	21,886	61,725
		$	451,290	141,324	44,368	122,039
	Total rolling mill products[2]	$	8,437,258	7,646,018	4,388,284	5,329,470
	Tubes, pipe and fittings—					
16	Boiler tubes	$	42,841	21,703	18,093	34,255
17	Cast iron pipe	cwt.	26,463	30,746	26,951	20,962
		$	65,833	63,589	59,540	32,840
18	Seamless tubing not less than 3½c. per lb.	cwt.	2,811	17,922	10,753	31,020
		$	31,369	146,557	98,895	175,914
	Total tubes, pipe and fittings[2]	$	284,399	312,992	419,547	427,137
	Wire—					
19	Barbed fencing	cwt.	14	2	366	4,792
		$	109	8	869	14,069
20	Galvanized, No. 9, 12 and 13 gauge, not telegraph or telephone	cwt.	20	808	108	531
		$	96	2,357	389	1,457
21	Steel wire for rope	cwt.	50,177	59,613	79,402	99,791
		$	356,867	411,270	483,078	636,730
22	Wire rope, twisted wire, clothes lines, wire cable, etc., n.o.p.	$	244,191	198,130	235,836	229,147
	Total wire[2]	$	913,880	920,591	999,755	1,170,106
23	Chains	$	209,704	201,933	221,570	178,057
	Engines and boilers—					
24	Engines, automobile	No.	7	15	–	–
		$	5,386	7,764	–	–
25	Engines, internal combustion, other	No	188	217	408	845
		$	234,708	443,751	192,861	370,261
26	Locomotives and parts	No.	–	–	11	–
		$	227,170	15,050	301,926	–
	Total engines and boilers[2]	$	723,258	728,946	774,781	964,896

[1] Subject to revision. [2] Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
907,873	1,020,968	1,292,720	1,156,382	1,051,059	1,236,716	1,489,801	1,351,442	1
3,639,255	3,656,943	4,565,760	3,878,142	4,339,135	4,408,557	5,177,767	4,614,506	
10,718	18,782	26,024	22,428	13,165	21,197	27,875	24,637	2
433,988	616,402	840,141	697,221	505,045	674,704	890,692	746,843	
1,082,391	1,835,971	2,123,111	1,850,168	1,382,644	2,169,284	2,753,478	2,409,185	3
3,359,282	4,989,151	5,768,681	4,948,815	4,396,413	6,079,273	7,458,132	6,451,466	
136,540	89,022	179,733	165,159	138,353	89,176	189,538	173,761	4
354,565	195,095	431,987	374,283	359,616	195,369	451,407	388,031	
68,327	128,883	123,012	181,094	161,272	220,080	188,990	268,837	5
327,142	547,380	514,992	699,908	718,081	887,225	770,871	1,036,965	
509,075	740,408	1,065,092	861,342	1,204,993	1,602,038	1,432,558	1,339,650	6
2,812,833	3,934,732	5,781,061	4,627,284	6,494,839	8,200,879	7,631,628	6,967,616	
471,578	747,337	964,303	1,047,763	565,821	799,273	1,083,996	1,172,395	7
977,845	1,403,059	1,931,217	2,051,123	1,152,628	1,485,454	2,100,039	2,234,459	
575,700	921,400	1,112,163	937,323	715,502	1,026,687	1,234,433	1,112,509	8
2,475,866	3,501,906	4,129,581	3,391,451	2,969,630	3,852,778	4,479,616	3,898,284	
316,067	397,958	388,102	368,447	580,838	595,841	546,750	457,015	9
1,505,754	1,721,217	1,693,655	1,495,582	2,776,323	2,598,562	2,358,816	1,859,829	
1,736,580	1,887,717	2,205,717	2,258,795	1,807,792	1,944,013	2,232,369	2,379,885	10
3,525,186	3,723,586	4,468,373	4,190,092	3,709,243	3,880,180	4,515,179	4,497,398	
372,058	588,464	683,651	607,738	436,441	642,491	792,280	713,728	11
974,706	1,427,240	1,601,316	1,346,437	1,126,920	1,540,250	1,777,889	1,517,967	
240,163	241,419	201,820	164,951	450,094	800,518	955,824	863,336	12
548,605	499,296	428,641	333,035	846,940	1,243,823	1,409,732	1,197,762	
79,943	19,523	131,856	1,548	85,559	19,523	131,856	1,548	13
27,473	20,967	72,723	70,200	232,048	78,492	72,723	84,769	14
2,050,973	2,616,753	3,510,683	4,113,821	2,326,417	2,819,649	3,738,540	4,428,904	15
4,417,721	5,127,920	7,112,711	8,121,758	4,944,138	5,436,423	7,466,721	8,569,993	
25,454,164	31,384,417	39,472,695	36,226,884	34,656,558	40,581,492	46,693,062	44,067,436	
613,502	799,364	814,872	810,066	684,725	893,993	934,630	917,547	16
24,959	32,163	21,246	19,329	146,055	243,819	105,616	122,931	17
72,667	106,883	79,903	77,556	305,996	491,335	247,948	238,222	
36,306	50,538	45,807	33,415	39,679	70,064	57,854	68,371	18
244,457	335,258	285,928	222,017	279,182	488,459	390,368	424,668	
1,934,085	2,763,379	3,178,766	3,051,862	2,424,375	3,482,106	3,841,908	3,738,548	
104,322	57,879	106,571	82,530	104,916	76,035	136,140	120,517	19
367,387	202,286	386,456	273,322	369,121	253,617	476,982	383,061	
133,524	188,974	198,960	234,864	133,556	220,153	242,379	249,090	20
389,688	504,034	530,853	615,002	389,831	577,275	613,240	653,029	
5,376	15,165	13,124	6,153	55,553	74,778	92,594	105,944	21
42,356	137,090	93,832	39,098	399,223	548,360	577,375	675,828	
81,727	52,982	75,056	84,762	328,506	257,848	317,880	325,677	22
1,613,340	1,624,309	1,857,895	1,825,247	2,552,323	2,790,031	3,160,849	3,317,776	
421,660	515,873	728,518	567,022	633,778	725,593	986,740	799,177	23
30,725	76,624	90,050	109,014	30,732	76,639	90,050	109,014	24
4,308,212	9,237,454	10,609,398	11,957,526	4,313,598	9,245,218	10,609,398	11,957,526	
5,606	9,278	13,995	13,232	5,802	9,515	14,428	14,104	25
720,232	1,084,494	1,339,646	1,506,913	957,298	1,536,497	1,565,449	1,979,767	
48	65	44	90	48	65	55	90	26
423,996	572,661	304,172	558,874	651,166	587,711	606,098	558,874	
6,608,912	12,108,770	14,073,189	15,928,076	7,341,341	12,861,592	14,922,187	17,006,829	

13.—Principal Imports into Canada for Consumption from United

No.	Items.		United Kingdom.			
			1925.	1926.	1927.	1928.[1]
	V. Iron and Its Products—continued.					
	Farm implements and machinery—					
1	Cream separators	No.	130	943	235	–
		$	1,748	25,984	7,218	17
2	Other dairy machinery	$	3,300	339	1,530	345
3	Harvesters	No.	–	–	–	–
		$	–	–	–	182
4	Other harvesting implements and machinery	$	6,205	7,397	9,663	10,342
	Planting and tillage—					
5	Drills and parts	No.	2	–	1	1
		$	152	–	444	5,150
6	Ploughs and parts	$	153	170	708	163
7	Other planting	$	2,611	2,957	3,265	4,968
	Seed separation—					
8	Threshing machine separators	No.	2	–	–	–
		$	148	–	–	–
9	Threshing machine separator parts	$	–	15	1,814	–
10	Fanning mills	$	223	109	–	14
11	Traction engines for farm purposes, not over $1,400 cash	No.	–	–	–	–
		$	–	–	–	–
12	Other farm tractors, parts and repairs	$	534	158	1,178	37
	Total farm implements and machinery[2]	$	66,437	96,375	134,458	197,660
	Hardware and cutlery—					
13	Cutlery	$	672,083	713,753	714,914	694,000
	Hardware—					
14	Nails, wire	cwt.	80	1,003	3,429	2,836
		$	514	3,485	9,448	7,984
15	Other nails, spikes, tacks	$	6,124	8,828	5,861	5,670
16	Needles and pins	$	163,192	180,304	212,714	176,199
17	Nuts and bolts	cwt.	4,218	778	1,180	2,271
		$	18,126	5,821	7,412	11,433
18	Screws	$	1,438	2,811	1,520	1,539
	Total hardware and cutlery[2]	$	992,289	1,067,043	1,068,091	1,001,532
	Machinery (except agricultural)—					
19	Sewing machines	No.	1,103	960	5,964	6,165
		$	33,176	24,523	115,283	134,493
20	Sewing machine parts and attachments	$	250,177	306,355	243,779	155,017
21	Washing machines, domestic	No.	1	–	1	1
		$	315	–	398	57
22	Other household machinery	$	467	354	370	315
23	Rock drills	No.	3	14	11	11
		$	18,639	20,224	7,746	20,871
24	Other mining and metallurgical	$	218,811	251,952	372,424	366,097
	Office or business—					
25	Adding	No.	9	–	–	4
		$	11,367	–	12	237
26	Typewriting	No.	13	5	9	18
		$	581	361	363	1,387
27	Other	$	1,451	4,285	7,825	3,662
	Printing and bookbinding—					
28	Printing presses	$	44,056	41,150	65,182	119,432
29	Typesetting machines	$	98	75	37	615
30	Other printing and bookbinding	$	8,263	22,950	39,883	64,799
31	Coke and gas machinery	$	281,165	150,601	68,017	68,214
32	Cranes and derricks	No.	11	20	10	15
		$	41,991	57,056	11,376	95,703
33	Logging equipment	$	253,865	291,769	361,414	259,859
34	Metal-working, n.o.p.	$	83,614	50,491	119,736	63,272
35	Paper and pulp-mill	$	252,522	1,312,044	820,836	1,101,423
36	Pumps, power, and parts	No.	124	60	71	89
		$	61,756	36,861	70,377	73,288
37	Rolling mill machines	$	2,831	326	1,012	4,122
38	Shovels, steam and electric	No.	–	1	–	1
		$	–	10,480	–	8,028
39	Textile	$	705,526	870,168	641,419	1,301,995
	Total machinery (except agricultural)[2]	$	3,234,618	4,291,073	4,335,185	5,103,644

[1]Subject to revision. [2]Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
5,581	10,614	13,892	7,676	10,998	18,055	23,658	16,910	1
263,621	545,111	729,263	357,270	408,787	742,794	997,548	611,245	
32,876	65,240	106,641	142,511	37,606	67,557	109,427	144,654	2
1,091	2,161	3,949	5,611	1,091	2,161	3,949	5,612	3
216,427	389,998	998,771	1,371,979	216,427	389,998	998,771	1,372,578	
116,197	166,967	377,260	426,369	123,465	176,162	408,662	455,930	4
1,285	3,769	6,047	6,156	1,286	3,769	6,048	6,157	5
93,348	346,004	835,930	865,690	93,415	346,004	836,374	870,840	
613,756	1,123,324	1,648,462	1,731,330	613,998	1,123,687	1,649,303	1,731,738	6
133,128	373,594	621,063	785,298	136,000	384,571	647,613	803,146	7
1,234	2,281	2,897	4,825	1,236	2,281	2,897	4,825	8
1,008,689	1,930,539	2,482,574	4,354,182	1,008,837	1,930,539	2,482,574	4,354,182	
472,380	514,761	703,919	769,905	472,380	514,776	705,806	769,905	9
44,962	51,051	63,104	77,318	45,866	51,448	63,278	77,332	10
2,078	6,762	9,101	18,469	2,078	6,762	9,101	18,471	11
1,324,347	4,991,673	6,847,239	14,890,800	1,324,347	4,991,673	6,847,239	14,893,586	
914,459	1,280,139	1,709,203	1,925,731	915,005	1,280,297	1,710,381	1,925,768	12
6,270,141	13,051,503	18,493,857	29,132,852	6,494,986	13,336,650	18,946,288	29,636,449	
319,519	313,719	351,824	388,511	1,351,547	1,428,084	1,585,382	1,625,122	13
4,359	16,947	9,959	2,853	6,095	31,228	36,166	20,335	14
26,498	61,055	38,337	18,447	31,171	98,719	114,235	65,239	
39,132	38,917	29,325	22,581	46,462	48,593	37,991	33,764	15
149,305	159,894	170,704	217,394	325,417	353,901	413,699	437,946	16
18,270	28,459	32,234	29,509	22,493	29,705	33,509	31,886	17
232,949	315,828	339,547	325,186	251,329	324,191	347,385	337,750	
116,853	108,041	114,713	133,111	118,579	114,041	116,972	142,546	18
1,727,612	1,913,806	2,118,253	2,339,172	3,125,314	3,481,756	3,874,736	4,097,572	
5,553	7,549	11,110	13,690	6,558	8,517	17,121	19,929	19
219,541	307,999	436,319	454,129	252,901	332,752	555,052	593,657	
333,047	416,017	186,245	203,532	584,469	722,642	430,176	360,230	20
10,909	13,295	15,491	18,495	10,910	13,297	15,492	18,496	21
642,735	792,071	1,069,795	1,251,013	643,050	792,131	1,070,193	1,251,070	
162,653	127,035	144,477	220,059	163,264	131,310	146,724	220,965	22
680	1,168	1,467	467	683	1,182	1,478	480	23
540,913	421,585	483,525	451,679	559,592	441,809	491,271	472,752	
785,754	1,559,933	2,528,079	2,660,709	1,004,563	1,811,888	2,900,654	3,071,202	24
3,568	3,752	4,181	7,934	3,607	3,790	4,191	7,956	25
498,751	510,626	668,171	967,725	518,010	520,044	670,770	990,500	
8,451	11,390	14,088	16,367	8,753	11,411	14,103	16,455	26
486,192	685,273	806,462	899,134	487,687	686,030	807,063	901,309	
438,175	512,003	591,297	678,373	439,626	516,288	599,122	682,045	27
1,382,906	1,211,163	1,488,097	2,289,315	1,462,758	1,307,922	1,596,174	2,505,113	28
660,690	487,923	671,761	962,254	660,788	487,998	672,041	962,869	29
458,222	577,088	563,692	742,976	470,828	608,295	626,281	836,219	30
228,979	110,727	174,416	419,870	510,144	261,328	242,433	488,084	31
120	170	166	268	131	190	176	283	32
539,704	548,530	583,582	1,056,429	581,695	605,586	594,958	1,152,132	
550,344	676,470	741,976	926,459	813,489	980,291	1,112,988	1,231,327	33
1,002,534	1,946,339	2,122,060	3,466,545	1,154,075	2,021,897	2,279,377	3,553,823	34
669,733	1,192,726	3,530,648	2,326,134	922,255	2,534,693	4,466,465	3,159,535	35
4,222	6,143	7,380	7,957	4,348	6,206	7,468	8,063	36
594,507	948,579	881,810	902,123	656,482	987,999	967,553	981,695	
150,531	159,208	238,495	280,479	153,362	159,534	239,507	284,601	37
28	54	51	108	28	55	51	109	38
300,833	469,714	562,005	943,738	300,833	480,194	562,005	951,766	
2,117,290	2,424,880	2,844,413	3,346,417	2,865,276	3,383,649	3,855,639	4,939,294	39
22,211,345	27,177,066	35,710,103	42,343,396	25,822,215	32,031,669	41,081,674	48,600,613	

13.—Principal Imports into Canada for Consumption from United

No.	Items.		United Kingdom. 1925.	1926.	1927.	1928.[1]
	V. Iron and Its Products—concluded.					
1	Springs	$	2,118	1,733	1,760	2,063
	Stamped and coated products—					
2	Tin cans	$	23,452	28,095	33,092	42,775
3	Other	$	126,337	146,090	146,100	150,336
4	Tools and hand implements	$	208,706	240,410	266,131	272,656
	Vehicles—					
5	Automobiles, freight	No.	37	30	78	129
		$	80,155	75,760	186,014	270,042
6	Automobiles, passenger	No.	30	87	111	56
		$	111,399	166,909	175,468	128,887
7	Automobile parts	$	53,573	56,313	69,476	92,297
8	Railway cars, all kinds	No.	68	30	48	86
		$	4,118	4,709	2,296	4,789
9	Railway cars, parts of	$	47,504	106,586	110,990	48,602
	Total vehicles[2]	$	367,574	488,183	656,448	698,232
10	Drums, tanks, cylinders	$	22,402	32,508	34,913	50,726
11	Furniture	$	3,781	7,601	19,437	33,789
12	Plates for agricultural implements	cwt.	440	–	153	–
		$	1,461	–	355	–
13	Pumps, hand	No.	629	315	429	318
		$	2,974	1,523	2,512	1,188
14	Stoves	$	4,774	1,669	2,254	2,041
15	Valves	$	37,658	52,838	31,470	48,079
16	Articles for ship-building	$	134,762	140,856	131,546	194,846
	Total Iron and Its Products[2]	$	**17,794,428**	**17,907,204**	**15,008,951**	**17,725,749**
	VI. Non-Ferrous Metals.					
17	Alumina and cryolite	cwt.	22	–	672	–
		$	21	–	508	–
18	Aluminium ingots, sheets	lb.	372,567	484,605	874,093	887,578
		$	96,227	148,636	229,029	246,183
19	Other aluminium	$	94,232	121,593	120,521	110,633
	Brass—					
20	Scrap	cwt	410	–	–	487
		$	3,597	–	–	6,476
21	Bars and rods	cwt.	2,859	2,205	3,472	2,474
		$	40,197	34,789	51,671	38,202
22	Strips, sheets, plates	cwt	1,152	493	689	521
		$	24,974	10,670	14,373	10,831
23	Tubing	lb.	403,461	336,144	462,373	494,555
		$	85,865	80,601	106,890	114,731
24	Wire, plain	lb.	2,258	56,241	22,395	29,473
		$	337	17,306	7,066	8,838
25	Wire cloth	$	63,675	61,987	17,252	8,055
	Total brass[2]	$	455,053	508,474	515,589	526,536
	Copper—					
26	Blocks, pigs, ingots	lb.	–	–	–	–
		$	–	–	–	–
27	Scrap	cwt	–	–	–	20
		$	–	–	–	231
28	Bars and rods	cwt	566	119	120	628
		$	10,274	2,193	2,123	6,887
29	Strips, sheets, plates	cwt.	3,190	528	368	919
		$	66,968	12,188	9,204	20,150
30	Tubing	lb.	91,132	108,420	217,460	195,944
		$	21,655	25,660	50,528	46,195
	Total copper[2]	$	156,755	181,530	191,301	150,582
	Lead—					
31	Pig	lb.	96,377	79,402	481,631	185,102
		$	6,949	6,447	34,233	11,680
32	Other	$	126,528	119,336	153,216	172,756
	Nickel—					
33	Bars, rods, sheets, etc	lb.	24,350	1,210	–	368
		$	4,459	559	–	127
34	Nickel-plated ware	$	139,523	132,995	155,738	278,975
35	Other	$	31,145	37,930	20,027	47,958

[1] Subject to revision. [2] Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
164,202	194,775	187,860	185,956	166,787	196,527	190,009	188,140	1
555,588	643,500	644,662	593,805	579,786	673,910	679,371	639,469	2
817,351	964,563	1,206,586	1,197,337	1,016,158	1,157,614	1,413,612	1,439,547	3
1,325,072	1,580,225	1,781,953	1,864,810	1,645,117	2,053,815	2,409,152	2,551,118	4
890	1,153	2,470	4,078	934	1,189	2,548	4,208	5
1,277,662	1,692,920	3,014,612	4,917,317	1,364,664	1,772,414	3,200,626	5,187,889	
8,797	14,844	29,082	35,723	8,835	14,935	29,202	35,783	6
8,602,104	13,850,260	23,687,560	29,099,989	8,726,714	14,022,814	23,882,455	29,234,603	
14,114,959	23,010,491	30,194,863	33,104,133	14,188,715	23,111,109	30,336,461	33,237,181	7
790	393	599	1,173	858	462	660	1,158	8
390,693	330,813	741,428	618,381	394,811	336,813	744,291	515,170	
616,511	519,674	897,016	926,178	664,015	626,508	1,008,006	975,050	9
25,359,408	39,783,164	59,121,221	69,640,997	25,769,561	40,330,368	59,874,191	70,395,597	
410,749	517,598	679,538	968,227	525,512	684,312	876,508	1,202,878	10
427,483	496,532	569,557	856,116	432,793	507,999	592,188	913,208	11
21,808	79,752	61,379	61,607	22,248	79,752	61,532	61,607	12
115,279	410,343	314,534	302,650	116,740	410,343	314,889	302,650	
15,081	24,124	33,697	31,058	17,185	27,554	37,162	35,455	13
231,459	571,773	595,314	370,614	240,521	583,703	607,452	388,264	
318,837	370,427	488,044	717,704	328,236	376,652	497,401	726,902	14
433,989	579,919	682,028	707,208	472,082	637,465	714,437	759,461	15
694,434	1,237,342	1,220,523	1,075,206	902,043	1,440,020	1,456,093	1,350,043	16
113,541,924	**158,027,944**	**206,655,021**	**233,991,420**	**134,684,441**	**181,196,800**	**229,429,485**	**259,573,668**	
1,357,848	1,336,509	1,646,564	2,381,529	1,358,148	1,336,538	1,647,244	2,663,166	17
2,566,587	2,675,186	4,107,631	6,288,256	2,568,617	2,675,361	4,108,462	6,333,237	
215,120	229,592	210,085	391,690	587,687	714,352	1,084,178	1,306,005	18
75,385	76,689	64,439	145,537	171,612	225,350	293,468	399,127	
803,938	867,563	930,734	1,087,574	1,015,459	1,134,351	1,171,225	1,458,171	19
31,459	30,494	29,105	28,539	32,889	33,092	31,047	29,929	20
289,951	304,798	284,464	275,005	299,017	323,666	297,148	288,408	
3,572	6,287	6,430	3,689	6,431	8,492	9,902	6,163	21
63,024	128,647	122,816	72,258	103,221	163,436	174,493	110,460	
6,024	9,877	13,033	17,808	7,176	10,370	13,722	18,329	22
117,657	161,004	239,461	144,592	142,631	171,674	253,834	155,423	
1,240,576	1,709,032	2,452,279	2,156,454	1,644,252	2,045,176	2,933,727	2,665,876	23
303,035	425,737	589,144	485,502	388,937	506,338	699,912	603,399	
258,116	395,875	439,021	356,782	362,089	453,543	474,696	387,993	24
83,220	92,067	113,560	88,270	84,153	109,763	125,287	97,465	
24,328	31,805	40,291	19,290	127,568	141,035	89,656	31,432	25
2,923,380	3,579,461	4,188,496	4,263,603	3,534,915	4,375,905	4,995,981	5,153,663	
8,716,301	8,621,899	8,039,758	3,191,621	8,716,301	8,621,899	8,039,758	3,191,621	26
1,185,658	1,227,315	1,137,701	442,653	1,185,658	1,227,315	1,137,701	442,653	
19,929	39,074	47,088	44,391	21,084	39,648	47,155	44,935	27
271,578	535,102	622,679	562,813	282,159	540,667	623,031	567,377	
200,467	254,331	194,660	283,426	201,033	254,817	195,622	284,896	28
2,847,340	3,740,435	2,968,032	4,005,579	2,857,614	3,747,343	2,981,677	4,024,828	
19,088	15,893	19,993	16,686	22,278	16,421	20,361	17,698	29
374,625	340,291	420,665	340,591	441,593	352,479	429,869	362,520	
1,403,123	1,706,666	2,348,072	1,836,740	1,496,049	1,815,086	2,587,584	2,045,121	30
333,112	422,772	523,888	436,767	355,242	448,432	579,539	486,265	
5,789.936	7,206,837	6,820,966	7,062,232	5,963,289	7,415,072	7,071,553	7,249,634	
504,196	528,695	366,303	280,623	600,573	608,097	851,718	471,420	31
48,278	56,257	40,466	22,001	55,227	62,704	75,015	34,021	
74,600	83,101	95,101	96,958	272,954	253,737	302,120	344,794	32
551,633	894,100	1,110,429	693,319	575,983	895,310	1,110,429	693,687	33
108,993	169,584	250,763	202,157	113,452	170,143	250,763	202,284	
1,086,357	1,222,588	1,339,750	1,750,567	1,271,328	1,411,766	1,619,179	2,308.586	34
226,607	259,052	305,826	855,288	258,871	302,375	341,005	913,805	35

13.—Principal Imports into Canada for Consumption from United

No.	Items.		United Kingdom.			
			1925.	1926.	1927.	1928.[1]
	VI. Non-Ferrous Metals—concluded.					
	Precious metals—					
1	Electro-plated ware	$	440,539	560,153	£29,397	790,665
2	Silver in bars, blocks, etc	$	161	2,363	12,459	10,292
3	Other	$	182,085	266,646	272,130	303,276
	Tin—					
4	Blocks, bars, pigs	cwt.	15,171	18,646	16,435	15,462
		$	770,260	1,069,540	1,057,174	948,157
5	Foil	lb.	15,577	2,448	8,023	4,503
		$	8,139	1,729	7,545	4,057
6	Other (collapsible tubes)	$	3,058	12,101	24,835	31,658
	Zinc—					
7	Spelter	lb.	11,200	22,410	11,200	–
		$	692	1,856	949	–
8	Sheets and plates	lb.	188,901	157,655	184,495	140,720
		$	14,222	13,810	17,765	21,823
9	Other	$	715	5,460	1,431	933
10	Phosphor tin and bronze	lb.	219,537	261,345	196,490	176,101
		$	77,192	105,604	72,962	60,500
11	Clocks and watches	$	49,684	62,602	65,997	75,004
	Electric apparatus—					
12	Batteries, storage	No.	4,379	2,344	895	138
		$	334,138	463,845	327,444	236,485
13	Dynamos, generators	$	73,792	176,300	268,353	389,820
	Incandescent lamps—					
14	Carbon filament	No.	8,766	835	515	1,136
		$	324	401	220	227
15	Metal filament	No.	58,835	9,124	10,407	8,612
		$	5,981	3,207	2,713	1,489
16	Electric light fixtures	$	9,998	7,874	9,427	14,941
17	Meters	$	28,426	29,494	63,473	18,960
18	Motors	$	203,781	344,353	467,860	494,641
19	Spark plugs, etc	$	3,465	4,364	5,504	14,242
20	Switches, etc	$	37,664	133,349	71,889	86,117
21	Telegraph instruments	$	10,977	10,673	29,841	19,336
22	Telephone instruments	$	27,345	74,056	187,033	60,305
23	Wireless apparatus	$	127,439	193,222	118,459	104,289
	Total electric apparatus, n.o.p.[2]	$	1,088,659	1,657,792	1,806,626	1,740,302
24	Gas apparatus	$	4,517	7,257	10,173	6,258
	Printing materials (except machinery)—					
25	Stereotypes	sq. in.	17,566	16,341	41,118	28,549
		$	2,107	1,962	3,207	2,863
26	Other	$	17,596	21,320	14,886	17,101
27	Manganese oxide	cwt.	98	164	115,200	–
		$	487	673	71,644	–
28	Antimony, not ground	lb.	170,306	315,218	44,800	40,660
		$	17,504	48,407	7,049	5,390
29	Mercury	lb.	47,040	8,773	14,802	4,615
		$	28,932	7,558	14,944	6,554
30	Lamps, sidelights, etc	$	23,494	27,241	34,193	39,786
	Total Non-Ferrous Metals[2]	$	**4,010,443**	**5,302,581**	**5,642,570**	**5,794,918**
	VII. Non-Metallic Minerals.					
31	Asbestos, other than crude	$	55,938	80,816	96,519	121,082
	Clay and clay products—					
32	China clay	cwt.	182,117	219,401	201,812	274,201
		$	91,370	98,753	96,681	127,089
33	Fire clay	cwt	43,493	48,187	27,716	22,127
		$	12,134	13,796	11,286	9,126
34	Bricks, building	$	1,741	566	200	9,360
35	Bricks, fire	$	168,442	196,855	133,066	160,099
36	Brick and tile, n.o.p.	$	228,184	247,797	259,064	308,259
37	Pottery and chinaware	$	2,766,338	2,889,266	2,655,125	2,863,582
38	Artificial teeth	$	1,902	2,615	5,860	1,715
39	Bath tubs, etc	$	300,632	320,372	317,236	384,254
	Total clay and clay products[2]	$	3,590,874	3,806,023	3,507,297	3,909,126

[1] Subject to revision. [2] Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
169,514	122,161	178,242	202,404	635,784	714,172	880,532	1,070,266	1
740,936	1,078,483	959,947	882,697	741,097	1,080,846	972,406	893,380	2
403,627	490,516	384,080	334,096	624,277	791,029	745,604	719,459	3
14,916	14,672	26,312	28,915	43,535	44,409	50,858	48,742	4
738,022	877,143	1,677,831	1,763,156	2,200,779	2,577,974	3,258,515	2,986,784	
1,004,314	523,946	288,713	106,003	1,021,686	527,094	296,736	116,135	5
336,767	229,731	140,747	69,763	345,539	231,836	148,292	77,511	
12,081	23,155	24,252	42,574	15,298	35,262	49,152	74,340	6
847,122	1,371,065	1,287,499	1,206,750	860,586	2,393,475	1,312,169	1,217,950	7
56,939	110,138	93,209	75,815	57,825	111,994	96,275	76,664	
1,434,103	3,056,935	3,699,932	3,331,352	2,957,024	4,744,878	5,663,810	5,550,836	8
144,077	311,121	369,811	297,134	263,457	457,462	559,529	472,578	
203,514	210,635	207,581	314,835	204,310	217,089	209,599	317,280	9
169,419	353,274	402,743	417,595	389,046	635,210	665,226	682,331	10
72,698	159,737	168,890	157,697	149,949	272,720	267,222	249,631	
850,229	1,008,036	1,190,773	1,218,964	2,451,425	2,344,721	3,141,254	3,303,798	11
18,167	24,362	39,392	28,592	22,546	26,811	40,287	28,735	12
589,529	576,530	389,003	290,496	923,701	1,042,152	716,553	527,031	
809,760	827,320	834,665	924,153	978,170	1,055,050	1,178,380	1,328,628	13
184,102	212,561	156,806	175,885	1,072,355	911,427	1,496,694	1,786,232	14
12,691	17,090	9,907	18,740	85,897	66,385	77,462	97,495	
452,438	502,618	452,088	301,732	2,253,321	3,553,966	2,881,548	3,054,346	15
80,282	84,485	88,156	59,065	301,009	418,521	270,719	222,677	
504,991	548,777	679,364	772,449	546,357	585,758	709,417	813,979	16
181,354	251,005	334,495	327,412	209,795	280,580	398,283	346,515	17
1,535,685	1,843,617	1,917,870	2,307,988	1,815,710	2,239,020	2,403,668	2,964,123	18
437,320	676,233	653,716	732,433	440,785	680,657	659,226	747,697	19
908,544	1,009,295	1,157,773	1,329,562	948,740	1,145,376	1,274,710	1,420,474	20
143,744	93,864	200,420	186,733	154,804	104,537	230,261	206,612	21
275,936	427,593	685,301	812,413	303,281	501,699	872,334	873,032	22
2,354,721	3,247,449	2,563,052	3,383,928	2,499,687	3,463,501	2,708,413	3,491,087	23
12,528,021	13,744,765	14,596,424	16,761,915	14,288,871	16,016,003	16,932,193	19,044,465	
163,627	164,167	157,300	211,930	171,639	177,137	172,500	227,767	24
4,017,106	4,306,090	5,280,189	6,795,114	4,039,819	4,325,646	5,323,438	6,826,874	25
196,317	226,829	296,617	259,162	198,882	229,153	300,024	262,402	
70,517	76,717	102,694	87,848	90,002	100,299	120,473	110,645	26
290,906	18,391	19,192	35,097	442,586	1,146,489	767,539	1,400,062	27
290,751	69,665	57,414	88,702	427,695	1,171,433	776,579	1,456,142	
522,588	774,661	1,124,604	1,017,663	768,894	1,089,879	1,268,712	1,074,003	28
41,931	133,479	144,487	110,901	74,624	181,886	162,530	117,742	
48,461	101,802	35,688	40,041	95,504	155,575	114,450	99,056	29
38,608	86,804	37,134	57,317	67,543	130,401	105,138	136,675	
669,452	700,695	871,268	947,124	720,445	751,447	957,848	1,088,973	30
33,297,222	**37,810,295**	**42,224,587**	**48,385,742**	**41,111,550**	**47,692,985**	**52,747,842**	**60,190,036**	
406,610	372,678	511,708	531,783	465,400	468,362	622,793	671,407	31
233,139	134,952	185,490	179,216	416,495	354,410	387,676	453,437	32
170,181	79,349	126,817	117,388	261,958	178,139	223,802	244,485	
774,291	828,135	930,725	928,597	817,784	876,324	958,441	951,444	33
151,040	164,708	184,708	209,288	163,174	178,524	195,994	219,074	
108,379	120,005	100,385	155,346	110,120	120,571	100,585	164,706	34
1,196,391	1,279,753	1,413,563	1,701,424	1,366,799	1,481,315	1,547,617	1,869,110	35
241,374	229,797	312,307	281,470	503,830	520,992	650,043	708,537	36
198,594	234,497	322,586	344,755	3,847,793	4,218,973	4,508,513	4,930,329	37
308,122	373,812	372,832	400,184	310,154	376,427	378,742	402,074	38
49,114	44,630	92,412	103,088	351,166	365,056	409,723	487,373	39
2,576,882	2,644,331	3,428,888	3,831,016	7,090,409	7,595,750	8,560,056	9,662,412	

13.—Principal Imports into Canada for Consumption from United

No.	Items.		United Kingdom.			
			1925.	1926.	1927.	1928.[1]
	VII. Non-Metallic Minerals—continued.					
	Coal and coal products—					
1	Coal, anthracite	ton	299,061	654,553	178,360	780,321
		$	2,705,775	6,112,668	1,693,979	6,192,720
2	Coal, bituminous	ton	13,417	55,628	4,470	127,686
		$	46,374	254,086	20,915	495,355
3	Coal for ships' stores	ton	–	–	–	–
		$	–	–	–	–
4	Coal tar, crude	gal.	15,735	3,741	11,419	167,632
		$	1,739	1,174	1,729	10,644
5	Carbolic oil	gal.	2,983,220	2,389,435	2,353,413	164,755
		$	527,460	318,427	351,822	38,890
6	Coke	ton	1,701	11,200	997	12,911
		$	11,913	83,186	5,641	107,371
	Total coal and coal products[2]	$	3,293,261	6,769,541	2,074,086	6,844,980
	Glass and glassware—					
7	Carboys, bottles, jars, etc. (including milk bottles)	$	47,206	58,641	105,523	102,832
8	Tableware	$	43,884	39,462	44,174	55,344
9	Common window glass	sq. ft.	2,295,244	7,173,154	2,760,122	2,738,311
		$	120,789	276,909	104,423	94,230
	Plate glass—					
10	Not over 7 sq. ft.	sq. ft.	582,316	786,439	1,368,251	1,171,072
		$	260,162	353,319	611,104	445,419
11	7 to 25 sq. ft.	sq. ft.	216,281	191,020	247,620	216,952
		$	118,207	108,767	131,231	96,704
12	Other, not bevelled	sq. ft.	351,814	403,893	434,917	489,685
		$	209,826	229,976	239,613	229,294
13	Incandescent lamp bulbs and tubing for	$	7,670	–	415	–
	Total glass and glassware[2]	$	1,070,470	1,364,067	1,502,094	1,331,305
14	Graphite and its products	$	36,383	36,800	42,521	51,883
	Petroleum, asphalt and their products—					
15	Asphalt, solid	cwt.	53	170	1,116	27
		$	641	2,242	1,758	348
16	Other asphalt and oil	$	97	224	138	7,277
	Crude petroleum—					
17	For refining	gal.	–	–	–	–
		$	–	–	–	–
18	Other ·8235 and heavier	gal.	–	–	–	–
		$	–	–	–	–
19	Fuel oil for ships' stores	gal.	–	–	–	–
		$	–	–	–	–
20	Coal and kerosene oil, refined	gal.	–	–	–	–
		$	–	–	–	–
	Gasolene—					
21	Under ·725 sp. gr.	gal.	–	–	–	–
		$	–	–	–	–
22	Other	gal.	1,021	–	–	1,840
		$	432	–	–	513
23	Lubricating oils	gal.	27,564	21,426	115,392	336,910
		$	16,465	12,667	97,632	241,880
	Total petroleum, asphalt and their products	$	44,526	54,560	153,601	328,566
	Stone and its products—					
24	Abrasives	$	156,365	217,942	193,135	226,515
25	Building and paving stone	$	129,202	115,055	102,321	96,061
26	Cement	cwt.	15,496	6,195	–	560
		$	10,473	2,721	–	803
27	Silica sand	cwt.	4,844	22	358	112
		$	1,317	56	223	59
28	Whiting	cwt.	205,928	247,721	221,898	181,068
		$	115,970	138,136	135,183	100,974
	Total stone and its products[2]	$	482,486	554,132	524,144	521,766

[1] Subject to revision. [2] Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
3,834,054	2,584,678	4,134,188	3,378,232	4,133,675	3,262,631	4,376,668	4,168,526	1
34,129,530	20,852,269	32,806,645	25,555,154	36,838,730	27,256,806	35,097,013	31,826,453	
11,494,846	13,321,097	13,074,698	12,663,415	11,510,053	13,377,204	13,079,418	12,791,273	2
24,695,530	28,525,651	26,958,685	25,899,251	25,750,817	28,781,771	26,980,950	26,395,455	
–	–	–	537,252	–	–	–	537,252	3
–	–	–	1,086,486	–	–	–	1,086,486	
2,289,223	3,748,086	3,427,139	4,260,070	2,304,998	3,751,867	3,441,983	4,427,702	4
158,161	267,031	239,088	320,484	159,935	268,215	241,787	331,128	
830,472	1,128,640	1,338,544	659,556	3,813,692	4,817,333	4,320,054	1,347,007	5
163,531	196,331	249,040	135,712	690,991	718,465	707,158	284,472	
577,142	928,046	865,337	785,969	578,843	939,246	889,392	816,323	6
3,494,804	6,421,886	5,370,704	4,593,538	3,506,717	6,505,072	5,537,604	4,810,446	
63,803,229	56,387,029	65,696,277	57,671,470	67,108,863	63,654,190	68,636,627	64,815,285	
1,069,521	909,679	1,108,257	1,167,103	1,212,585	1,096,294	1,389,207	1,444,259	7
439,725	467,459	583,077	572,769	644,537	706,754	868,395	901,029	8
92,133	79,298	249,505	67,155	23,559,813	38,694,185	40,275,041	43,983,102	9
10,051	11,740	38,986	8,824	1,030,803	1,334,068	1,187,776	1,163,911	
52,385	157,164	407,656	1,135,887	2,052,604	2,623,386	4,021,948	3,672,517	10
20,773	56,076	145,373	384,118	919,091	1,060,376	1,612,885	1,187,593	
3,417	28,521	53,859	177,689	537,479	519,892	730,476	676,878	11
3,092	11,854	20,226	71,701	288,790	271,509	359,916	262,157	
3,638	24,491	26,857	256,511	800,881	889,578	1,065,336	1,078,085	12
4,007	9,417	10,502	108,614	471,748	479,135	566,756	462,104	
237,870	398,047	514,213	454,847	343,670	441,669	552,500	535,662	13
2,878,912	3,106,483	3,754,819	4,069,675	6,661,148	7,298,029	8,638,579	8,129,616	
53,963	113,633	80,686	71,238	90,573	151,711	123,705	123,121	14
327,974	244,610	435,717	968,841	330,230	247,031	440,193	974,502	15
281,698	288,573	447,157	861,640	283,796	292,162	450,865	865,573	
49,397	24,261	42,265	100,202	49,494	24,485	42,403	107,479	16
363,300,243	256,148,699	505,235,255	470,552,886	440,671,846	470,616,511	596,466,714	709,959,837	17
16,166,950	19,132,857	26,014,387	18,872,741	19,834,683	25,675,071	32,375,077	30,796,263	
95,946,059	89,823,164	82,884,738	60,496,565	96,919,195	98,023,025	97,120,093	75,914,345	18
4,306,854	3,894,164	3,342,859	2,516,094	4,401,779	4,311,824	4,063,272	3,234,704	
–	–	–	30,108,245	–	–	–	44,074,770	19
–	–	–	1,059,565	–	–	–	1,728,699	
5,473,953	4,632,707	4,991,364	3,985,408	5,474,153	5,019,335	4,991,423	3,987,460	20
447,078	390,923	557,695	335,346	447,131	453,579	557,711	335,945	
58,291,880	58,606,255	63,833,449	88,934,875	58,291,880	58,606,255	63,833,449	88,936,556	21
7,386,396	8,409,686	9,135,629	8,799,540	7,386,396	8,409,686	9,135,629	8,800,094	
19,346,894	24,393,860	23,715,877	23,297,336	19,352,161	24,405,812	23,716,772	23,313,613	22
2,381,773	3,224,501	3,337,413	2,745,904	2,383,149	3,226,750	3,337,735	2,749,713	
7,900,346	8,758,660	10,707,116	12,228,343	7,929,463	8,782,802	10,823,082	12,566,986	23
2,306,776	2,542,556	3,052,091	3,465,372	2,323,998	2,556,960	3,150,169	3,708,791	
34,291,870	38,957,320	47,182,371	39,850,535	38,105,478	46,059,810	54,457,793	53,529,319	
1,391,224	2,083,421	2,691,572	3,050,185	1,562,934	2,323,044	2,909,967	3,328,884	24
250,236	250,037	314,522	357,907	402,598	426,991	497,656	539,234	25
38,117	50,851	61,332	70,792	95,225	95,051	62,725	73,652	26
40,731	52,517	80,379	87,533	64,223	71,826	81,715	90,613	
2,074,872	2,048,340	2,630,234	2,322,950	2,604,271	2,783,111	3,178,640	2,921,480	27
258,560	262,510	324,455	266,682	334,665	340,471	381,408	330,130	
44,224	63,010	74,705	81,924	291,648	351,281	349,581	306,761	28
37,573	49,025	53,923	58,535	176,877	207,924	212,347	181,705	
3,184,919	4,038,825	4,966,829	5,378,067	3,953,515	4,907,484	5,965,893	6,395,610	

13.—Principal Imports into Canada for Consumption from United

No.	Items.		United Kingdom.			
			1925.	1926.	1927.	1928.[1]
	VII. Non-Metallic Minerals—concluded.					
	Miscellaneous—					
1	Carbons, electric	$	2,790	2,332	2,738	1,000
2	Diamonds, unset	$	696,914	1,196,825	1,042,672	987,296
3	Insulators, electric	$	2,127	7,329	1,889	9,408
4	Salt	cwt.	780,950	563,006	393,297	490,404
		$	332,661	304,290	240,156	262,327
5	Sulphur	cwt.	23	6	–	33
		$	55	18	–	90
	Total Non-Metallic Minerals[2]	$	**9,648,724**	**14,226,799**	**9,253,721**	**14,467,621**
	VIII. Chemicals and Allied Products.					
6	Acids	$	98,753	116,309	111,630	205,953
7	Cellulose products	$	91,323	79,270	81,105	86,141
8	Drugs and medicinal preparations	$	993,281	1,119,116	1,107,817	908,983
	Dyeing and tanning materials—					
9	Coal tar dyes	lb.	337,340	151,209	139,137	105,534
		$	115,964	87,496	87,530	76,013
10	Logwood, oak, quebracho extracts	lb.	522,256	194,312	410,425	428,316
		$	21,716	12,204	19,275	23,016
	Total dyeing and tanning materials[2]	$	169,157	150,614	157,581	138,316
11	Explosives	$	31,025	35,094	101,968	61,772
	Fertilizers, n.o.p.—					
12	Potash, muriate of	cwt.	–	–	–	–
		$	–	–	–	–
13	Soda nitrate	cwt.	709	196	17,870	172
		$	2,531	765	36,994	727
14	Superphosphates	cwt.	60	2,506	–	21,560
		$	75	2,844	–	9,712
	Total fertilizers, n.o.p.[2]	$	36,238	13,332	46,879	26,198
	Paints, pigments and varnishes—					
15	Litharge	cwt.	3,980	4,920	7,908	11,620
		$	34,661	49,208	72,290	86,612
16	Black, carbon	lb.	10	210	–	–
		$	2	25	–	–
17	Lithopone	lb.	778,967	2,829,810	1,155,960	1,416,872
		$	32,501	113,246	45,852	52,392
18	Oxides	lb.	1,140,289	1,104,032	1,177,304	1,199,906
		$	102,620	109,611	126,686	133,304
19	Zinc white	lb.	1,553,647	531,118	122,648	144,640
		$	89,660	41,320	9,472	10,821
20	Liquid fillers, etc	lb.	770,108	1,028,768	942,981	1,040,886
		$	166,249	224,214	156,409	149,510
21	Varnish, lacquers, etc	gal.	15,202	17,348	14,363	19,683
		$	35,445	36,459	24,760	33,037
	Total paints, etc.[2]	$	635,189	774,791	724,427	771,371
	Perfumery, cosmetics—					
22	Perfumes over 4 oz	gal.	229	368	289	379
		$	13,879	25,308	20,029	25,004
23	Other	$	197,912	198,913	235,547	260,746
	Soaps—					
24	Castile	lb.	69,001	15,360	5,983	7,524
		$	5,277	1,311	677	1,126
25	Common laundry	lb.	173,669	110,445	98,583	86,841
		$	13,906	9,687	8,757	7,658
	Total soaps[2]	$	120,549	120,502	137,187	148,156
	Inorganic chemicals, n.o.p.—					
26	Sulphate of alumina	cwt.	11,380	14,095	16,767	9,176
		$	11,381	14,066	16,227	10,397
27	Ammonia, nitrate of	lb.	6,750	–	1,184	1,573,877
		$	307	–	96	85,597
28	Copper sulphate	lb.	833,001	1,075,349	1,316,673	884,694
		$	38,438	51,977	60,797	43,121

[1] Subject to revision. [2] Totals include other items not specified.

Kingdom, United States and All Countries, fiscal years 1925-1928—continued.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
800,941	875,198	1,261,423	766,567	811,387	885,358	1,271,090	771,927	1
18,402	28,204	25,087	17,926	2,168,525	3,212,565	2,799,520	3,067,838	2
564,684	459,502	232,549	283,298	589,898	496,531	276,486	310,368	3
2,141,393	2,335,564	2,076,958	2,153,011	3,595,991	4,029,515	3,624,733	3,500,272	4
675,874	612,656	582,766	649,918	1,097,548	1,091,937	1,025,722	1,067,104	
2,812,647	2,912,124	3,724,254	3,591,684	2,816,133	2,916,832	3,726,983	3,593,658	5
1,849,243	2,019,365	2,998,371	2,902,866	1,855,085	2,026,807	3,004,540	2,907,539	
111,970,906	**110,678,814**	**131,955,558**	**117,447,997**	**131,013,294**	**139,033,940**	**156,784,707**	**153,049,438**	
267,314	349,544	340,409	385,862	481,882	610,552	618,477	743,217	6
948,605	1,704,364	2,011,001	2,146,027	1,158,595	1,939,280	2,335,385	2,508,493	7
1,161,859	1,400,780	1,416,748	1,446,654	2,617,241	2,992,150	3,108,199	3,036,439	8
1,528,765	1,813,987	2,055,224	2,000,867	2,629,090	2,919,794	3,547,620	3,460,387	9
876,473	888,080	992,523	932,324	1,548,015	1,632,348	1,954,852	1,775,753	
41,429,745	26,169,281	25,650,341	33,853,091	47,198,719	36,368,992	37,542,752	42,878,857	10
1,422,497	964,829	902,624	1,288,140	1,621,708	1,310,744	1,388,860	1,717,014	
2,582,704	2,117,519	2,159,462	2,555,003	3,521,027	3,336,933	3,738,952	3,940,933	
254,322	293,900	272,365	460,285	336,510	364,071	469,893	586,668	11
21,940	28,489	86,342	131,150	194,741	277,791	314,866	379,529	12
41,586	48,568	143,877	214,004	289,268	402,774	472,071	670,023	
237,070	283,606	200,531	294,486	428,115	584,469	454,264	548,446	13
608,165	753,612	527,030	719,895	1,051,697	1,462,424	1,115,608	1,263,710	
914,276	1,384,540	1,483,570	1,624,688	914,736	1,387,069	1,529,810	1,734,455	14
464,163	816,942	900,006	888,875	464,372	819,792	927,176	945,032	
1,601,104	2,243,404	2,415,459	2,921,189	2,387,970	3,419,624	3,492,448	4,145,158	
4,867	13,540	15,000	12,721	8,864	18,527	25,165	30,556	15
52,662	145,198	150,434	103,387	87,483	195,017	239,787	234,227	
3,783,745	5,932,323	6,860,589	10,000,898	3,783,755	5,964,211	6,885,744	10,079,921	16
248,861	383,708	494,757	659,857	248,863	386,958	497,225	667,094	
1,026,227	2,120,677	3,620,126	3,985,928	8,010,959	10,743,020	13,768,543	15,821,372	17
56,814	110,991	188,191	203,813	333,919	454,309	572,283	646,231	
3,519,022	4,187,224	4,982,404	5,160,243	4,809,099	5,385,315	6,357,798	6,590,261	18
274,322	353,423	445,544	463,199	394,000	478,174	598,177	624,690	
7,860,677	9,896,535	10,322,473	12,901,334	13,802,512	12,942,562	14,011,246	17,068,221	19
550,347	691,074	710,426	850,418	927,702	909,169	982,119	1,226,850	
1,996,425	2,240,340	2,062,026	2,379,874	2,820,620	3,338,700	3,065,069	3,487,775	20
305,598	357,651	342,860	361,969	486,047	600,289	511,686	528,387	
82,959	98,296	117,080	89,632	98,265	116,660	131,953	109,821	21
165,968	215,967	255,615	181,271	201,792	256,581	281,479	216,262	
2,060,068	2,719,125	3,115,553	3,327,713	3,300,511	3,997,612	4,607,411	5,015,186	
259	244	397	391	4,270	4,432	4,493	2,497	22
8,321	5,369	8,450	9,489	91,706	96,761	103,231	105,478	
483,083	499,927	509,678	592,704	919,628	932,417	1,000,422	1,207,365	23
59,601	45,910	55,212	98,353	900,301	1,031,985	1,331,991	1,215,658	24
6,629	5,654	7,059	14,234	72,932	84,762	107,494	101,312	
10,003,358	8,501,554	9,652,551	9,491,341	10,281,099	8,685,751	9,812,480	9,652,153	25
724,880	612,146	680,875	692,413	747,410	627,813	695,013	705,996	
945,959	828,510	920,651	893,155	1,173,121	1,068,067	1,204,622	1,178,108	
284,244	331,606	405,126	406,366	299,625	346,151	428,026	427,040	26
343,109	402,977	466,224	464,716	354,490	417,565	488,935	485,538	
7,237	11,577	340,137	229,644	2,939,608	3,948,301	4,848,747	5,416,287	27
1,107	1,008	15,093	10,305	149,853	213,813	210,600	240,986	
1,099,467	1,861,541	946,370	2,085,357	3,277,716	3,120,575	3,606,065	5,500,921	28
58,082	90,908	48,558	107,667	161,440	151,610	170,531	269,232	

13.—Principal Imports into Canada for Consumption from United

No.	Items.		United Kingdom. 1925.	1926.	1927.	1928.[1]
	VIII. Chemicals and Allied Products—concl.					
	Inorganic chemicals, n.o.p.—concluded.					
1	Chlorine, liquid	lb.	–	–	–	–
		$	–	–	–	–
2	Chloride of lime	lb.	693,549	683,488	704,506	1,487,763
		$	14,798	13,549	13,700	25,629
3	Potash compounds	lb.	198,301	223,111	265,608	553,415
		$	33,998	29,047	35,268	70,860
4	Soda compounds	lb.	31,230,603	25,963,367	44,134,422	42,488,403
		$	396,846	613,665	769,125	726,966
5	Acid phosphate	lb.	19,152	32,840	94,396	97,974
		$	984	1,851	5,013	5,766
	Total inorganic chemicals, n.o.p.[2]	$	664,288	869,494	1,052,040	1,125,891
6	Glycerine	lb.	1,934,363	1,777,070	2,987,815	458,624
		$	329,959	288,818	642,190	89,822
	Total Chemicals and Allied Products[2]	$	**4,146,061**	**4,282,489**	**4,907,477**	**4,422,349**
	IX. Miscellaneous Commodities.					
	Amusement and sporting goods—					
7	Films for motion pictures	ft.	309,150	286,158	366,008	1,099,249
		$	23,870	23,089	29,040	89,241
8	Toys and dolls	$	169,258	189,826	215,535	239,481
9	Other	$	65,950	77,306	88,002	104,085
10	Brushes	$	109,332	128,204	139,965	162,266
11	Containers	$	1,251,480	1,283,575	1,366,864	1,645,947
	Household and personal equipment—					
12	Boots and shoes, with canvas uppers	pr.	20,949	12,299	8,420	6,436
		$	15,840	9,237	8,166	4,781
13	Boots and shoes, with felt uppers	pr.	195,077	375,531	355,162	338,255
		$	110,834	216,594	195,470	199,492
14	Buttons	$	55,897	43,644	33,313	31,556
15	Combs	$	67,752	84,550	63,844	42,461
16	Jewelry	$	177,283	123,716	108,590	131,405
17	Pocketbooks, etc	$	257,059	280,369	274,791	373,915
18	Tobacco pipes	$	408,974	425,872	383,073	454,614
	Total household, etc.[2]	$	1,506,738	1,595,362	1,615,418	1,802,772
19	Mineral and aerated waters	$	13,768	16,380	9,676	11,075
	Musical instruments—					
20	Phonographs and parts	$	26,807	24,522	27,013	20,546
21	Other	$	59,291	86,994	95,896	68,332
22	Scientific and educational equipment	$	250,361	274,426	220,287	269,400
23	Ships and materials for, n.o.p.	$	97,065	172,099	188,054	994,637
24	Vehicles, n.o.p.	$	38,189	58,479	39,927	290,961
25	Works of art, n.o.p.	$	139,070	231,345	239,048	359,400
	Miscellaneous imports under special conditions—					
26	For army and navy	$	23,745	13,293	24,599	20,068
27	Re-imported	$	394,986	699,063	1,210,123	471,836
28	For exhibition	$	301,924	124,358	151,847	640,478
29	Ex-warehoused for ships' stores[3]	$	197,377	209,463	211,409	279,153
	Total miscellaneous imports under special conditions[2]	$	1,077,572	1,206,827	1,910,863	1,715,151
30	Incubators and brooders	No.	4	26	3	3
		$	225	454	172	464
31	Pencils, lead	$	70,706	87,775	103,647	105,794
32	Precious stones	$	117,982	252,708	250,338	144,531
33	Settlers' effects	$	958,491	920,053	1,146,501	1,171,469
34	Waste paper, etc	cwt.	51,066	69,182	73,796	53,225
		$	131,894	219,116	165,430	160,035
35	Wax, vegetable and mineral, n.o.p.	lb.	1,120	2,399	45,239	1,596,190
		$	58	435	2,406	78,530
	Total Miscellaneous Commodities[2]	$	**6,999,798**	**7,800,530**	**8,797,426**	**10,429,147**
	Grand Total Imports for Consumption	$	**151,083,946**	**163,731,210**	**163,939,065**	**185,888,581**

[1] Subject to revision. [2] Totals include other items not specified. [3] Exclusive of coal and fuel oil in 1928.

Kingdom, United States and All Countries, fiscal years 1925-1928—concluded.

United States.				All Countries.				No.
1925.	1926.	1927.	1928.[1]	1925.	1926.	1927.	1928.[1]	
7,276,067	6,547,067	12,645,170	7,678,901	7,276,067	6,547,067	12,645,170	7,678,901	1
261,007	230,203	394,191	252,311	261,007	230,203	394,191	252,311	
15,106,764	12,655,120	16,546,176	11,958,440	16,030,574	13,620,570	17,714,397	14,823,999	2
253,510	238,202	273,613	197,005	272,183	256,303	294,084	238,721	
1,535,586	1,535,043	2,392,840	2,030,519	4,200,964	4,593,610	5,760,298	5,666,641	3
173,052	187,374	218,753	223,091	408,942	439,664	529,882	539,897	
157,280,312	180,601,565	165,587,875	180,723,823	193,776,648	211,388,390	215,575,523	229,737,273	4
1,997,497	2,159,989	2,218,946	2,240,744	2,496,114	2,891,714	3,163,121	3,181,366	
3,666,765	3,475,438	3,909,327	2,980,327	3,685,917	3,507,918	4,003,723	3,080,101	5
223,333	210,167	256,509	226,361	224,317	212,018	261,522	232,306	
3,770,767	4,134,689	4,446,031	4,467,078	5,014,205	5,668,701	6,373,499	6,502,895	
812,160	654,152	167,103	224,757	3,483,655	4,505,978	4,041,102	1,703,611	6
127,725	110,385	41,709	36,421	560,765	719,661	866,361	330,020	
16,366,165	**18,716,266**	**20,623,830**	**22,246,232**	**24,760,237**	**28,494,276**	**31,844,715**	**33,572,113**	
22,291,820	23,593,221	19,504,247	10,211,245	22,675,050	23,904,034	19,955,919	11,359,245	7
1,797,689	1,898,698	1,559,825	817,55(	1,827,487	1,923,615	1,594,443	912,150	
787,190	668,113	755,871	838,15(	1,771,758	1,647,554	1,940,842	2,118,497	8
617,085	451,151	788,803	1,538,940	695,574	538,458	895,696	1,679,492	9
259,797	227,724	240,070	248,07(	565,055	594,273	640,469	631,714	10
664,060	881,793	1,230,657	1,380,18[illegible]	2,452,926	2,823,319	3,468,459	4,088,123	11
43,688	51,011	64,051	62,58(	66,112	63,360	73,303	69,703	12
37,796	35,938	56,755	44,052	54,223	45,207	65,579	49,393	
23,681	33,132	38,161	39,44[illegible]	221,127	410,757	396,668	382,570	13
13,906	20,782	22,232	23,16[illegible]	125,717	238,550	219,345	224,780	
326,955	335,690	299,473	239,263	679,555	686,863	645,117	534,724	14
125,567	61,993	65,008	41,48(	314,759	233,380	266,923	249,768	15
813,581	856,861	1,027,366	1,145,23(	1,364,817	1,255,176	1,475,461	1,857,592	16
317,656	361,752	366,941	360,85[illegible]	759,941	776,658	859,714	1,058,209	17
25,765	23,176	28,898	36,849	788,806	799,388	880,121	963,517	18
3,224,716	3,377,888	4,136,944	4,436,998	6,400,329	6,467,579	7,703,739	8,542,539	
58,676	53,076	61,923	73,013	183,873	188,566	189,427	212,753	19
667,636	329,179	948,607	926,807	708,367	367,841	1,004,120	978,616	20
892,399	1,143,761	1,086,679	970,360	1,168,628	1,498,256	1,531,831	1,398,960	21
2,626,347	2,832,507	3,491,237	3,465,77[illegible]	3,173,451	3,400,240	4,076,410	4,147,272	22
369,798	696,620	2,347,921	835,88[illegible]	489,241	879,092	2,680,313	1,854,915	23
486,833	680,769	871,585	1,417,97(	527,209	746,210	919,927	1,717,477	24
161,679	211,548	381,128	557,205	410,671	574,883	859,267	1,177,808	25
2,055	845	394	1,121	43,430	42,259	46,233	27,900	26
1,824,979	2,310,244	2,439,825	3,002,010	2,675,687	3,490,242	4,253,163	3,772,002	27
1,242,378	2,916,155	5,098,145	2,097,87(	1,639,410	3,059,739	5,261,486	2,827,730	28
2,653,423	3,806,230	3,108,553	197,304	3,947,653	5,397,081	4,238,499	542,236	29
7,759,432	11,132,321	12,243,600	6,862,180	10,788,341	14,746,697	16,069,135	9,580,637	
6,869	10,710	16,613	29,56(	6,873	10,736	16,616	29,572	30
132,152	194,872	371,214	518,097	132,377	195,398	371,386	519,348	
434,686	495,937	500,251	515,731	623,413	739,632	803,874	813,838	31
89,079	80,239	70,695	80,234	400,859	503,903	473,938	521,303	32
5,202,903	5,132,184	6,334,403	7,744,16[illegible]	6,342,517	6,271,891	7,797,518	9,192,370	33
804,643	892,292	888,658	858,126	860,739	962,375	966,452	916,693	34
1,146,709	1,411,247	1,117,254	996,54(	1,287,493	1,635,584	1,306,080	1,912,546	
442,475	482,999	443,114	731,25[illegible]	444,439	488,292	613,758	2,681,138	35
69,078	98,978	111,132	149,215	69,404	100,365	122,297	246,294	
32,797,543	**38,084,735**	**44,973,689**	**41,157,483**	**46,659,067**	**53,232,815**	**62,227,271**	**59,848,892**	
509,780,009	**608,618,542**	**687,022,521**	**719,443,513**	**796,932,537**	**927,328,732**	**1,030,892,505**	**1,108,956,466**	

14.—Imports (Dutiable and Free) and Exports of Canadian and Foreign Produce, by Main Classes, during the fiscal years ended Mar. 31, 1924-1928.

Classes.	1924.	1925.	1926.	1927.	1928.
IMPORTS.	$	$	$	$	$
Agricultural and Vegetable Products (except chemicals, fibres and wood).					
Dutiable	132,547,496	120,036,907	123,051,487	133,362,597	153,762,736
Free	53,921,189	53,548,932	80,365,944	79,735,524	84,422,824
Total	**186,468,685**	**173,585,839**	**203,417,431**	**213,098,121**	**238,185,560**
Animals and Animal Products (except chemicals and fibres).					
Dutiable	24,649,153	20,287,546	24,698,634	26,091,583	30,002,698
Free	20,377,581	21,204,423	24,486,924	27,122,552	35,787,323
Total	**45,026,734**	**41,491,969**	**49,185,558**	**53,214,135**	**65,790,021**
Fibres, Textiles and Textile Products.					
Dutiable	111,763,032	110,803,970	117,444,241	127,110,568	127,165,263
Free	62,032,628	54,636,787	67,317,590	56,473,363	59,830,551
Total	**173,795,660**	**165,440,757**	**184,761,831**	**183,583,931**	**186,995,814**
Wood, Wood Products and Paper.					
Dutiable	24,008,063	23,887,672	24,916,363	29,387,075	31,819,999
Free	16,968,770	14,297,711	15,486,723	18,575,223	19,930,925
Total	**40,976,833**	**38,185,383**	**40,403,086**	**47,962,298**	**51,750,924**
Iron and its Products.					
Dutiable	151,704,435	119,558,332	158,705,624	196,131,342	215,662,060
Free	21,769,068	15,126,109	22,491,176	33,298,143	43,911,608
Total	**173,473,503**	**134,684,441**	**181,196,800**	**229,429,485**	**259,573,668**
Non-ferrous Metals and their Products.					
Dutiable	31,075,329	29,062,665	32,429,812	36,795,977	39,401,249
Free	12,357,288	12,048,885	15,263,173	15,951,865	20,788,787
Total	**43,432,617**	**41,111,550**	**47,692,985**	**52,747,842**	**60,190,036**
Non-metallic Minerals and their Products (except chemicals).					
Dutiable	74,108,597	53,790,421	59,444,477	61,589,364	60,219,594
Free	81,790,796	77,222,873	79,589,463	95,195,343	92,829,844
Total	**155,899,393**	**131,013,294**	**139,033,940**	**156,784,707**	**153,049,438**
Chemicals and Allied Products					
Dutiable	15,112,471	13,782,902	15,391,094	17,425,263	17,842,190
Free	10,975,570	10,977,335	13,013,182	14,419,452	15,729,923
Total	**26,088,041**	**24,760,237**	**28,404,276**	**31,844,715**	**33,572,113**
Miscellaneous Commodities.					
Dutiable	26,330,518	24,804,040	26,969,938	32,003,244	34,174,439
Free	21,874,883	21,855,027	26,262,877	30,224,027	25,674,453
Total	**48,205,401**	**46,659,067**	**53,232,815**	**62,227,271**	**59,848,892**
Total Imports.					
Dutiable	591,299,094	516,014,455	583,051,670	659,897,013	710,050,228
Free	302,067,773	280,918,082	344,277,062	370,995,492	398,906,238
Total Imports	**893,366,867**	**796,932,537**	**927,328,732**	**1,030,892,505**	**1,108,956,466**
Duty collected	**135,122,345**	**120,222,454**	**143,933,110**	**158,966,367**	**171,872,768**

14.—Imports (Dutiable and Free) and Exports of Canadian and Foreign Produce, by Main Classes, during the fiscal years ended Mar. 31, 1924-1928—concluded.

Classes.	1924.	1925.	1926.	1927.	1928.
EXPORTS.	$	$	$	$	$
Agricultural and Vegetable Products (except chemicals, fibres and wood).					
Canadian Produce	430,932,150	443,298,877	606,058,672	574,994,162	555,110,598
Foreign Produce	2,026,788	1,603,678	1,811,768	4,347,294	8,837,492
Total	**432,958,938**	**444,902,555**	**607,870,440**	**579,341,456**	**563,948,090**
Animals and Animal Products (except chemicals and fibres).					
Canadian Produce	140,423,284	163,031,415	190,975,417	167,291,589	165,845,096
Foreign Produce	1,684,513	1,790,095	1,498,160	1,354,666	1,915,046
Total	**142,107,797**	**164,821,510**	**192,473,577**	**168,646,255**	**167,760,142**
Fibres, Textiles and Textile Products.					
Canadian Produce	8,055,083	9,711,720	8,940,046	7,665,563	10,904,073
Foreign Produce	1,555,639	2,217,273	1,320,099	1,375,778	1,808,756
Total	**9,610,722**	**11,928,993**	**10,260,145**	**9,041,341**	**12,712,829**
Wood, Wood Products and Paper.					
Canadian Produce	273,354,778	253,610,024	278,674,960	284,120,267	284,543,396
Foreign Produce	498,111	419,992	391,619	414,301	444,119
Total	**273,852,889**	**254,030,016**	**279,066,579**	**284,534,568**	**284,987,515**
Iron and its Products.					
Canadian Produce	66,975,571	57,405,940	74,735,077	74,284,824	62,753,934
Foreign Produce	3,345,889	2,713,317	2,893,093	2,629,176	3,301,107
Total	**70,321,460**	**60,119,257**	**77,628,170**	**76,914,000**	**66,055,041**
Non-ferrous Metals and their Products;					
Canadian Produce	65,911,171	90,370,788	97,476,270	80,639,197	90,840,441
Foreign Produce	572,560	484,726	626,856	688,835	696,055
Total	**66,483,731**	**90,855,514**	**98,103,126**	**81,328,032**	**91,536,496**
Non-metallic Minerals and their Products (except chemicals).					
Canadian Produce	26,776,330	20,728,986	24,568,845	28,509,838	25,280,805
Foreign Produce	731,566	780,468	1,197,070	1,020,665	891,287
Total	**27,507,896**	**21,509,454**	**25,765,915**	**29,530,503**	**26,172,092**
Chemicals and Allied Products.					
Canadian Produce	15,559,956	16,209,820	17,498,128	16,574,753	17,892,904
Foreign Produce	173,012	349,012	690,867	709,965	422,818
Total	**15,732,968**	**16,558,832**	**18,188,995**	**17,284,718**	**18,315,722**
Miscellaneous Commodities.					
Canadian Produce	17,362,733	14,699,783	16,428,376	18,077,313	15,036,359
Foreign Produce	2,824,163	1,935,729	2,914,814	2,874,956	3,932,011
Total	**20,186,896**	**16,635,512**	**19,343,190**	**20,952,269**	**18,968,370**
Total Exports.					
Canadian Produce	1,045,351,056	1,069,067,353	1,315,355,791	1,252,157,506	1,228,207,606
Foreign Produce	13,412,241	12,294,290	13,344,346	15,415,636	22,248,691
Total Exports	**1,058,763,297**	**1,081,361,643**	**1,328,700,137**	**1,267,573,142**	**1,250,456,297**
Total Trade.					
Imports merchandise	893,366,867	796,932,537	927,328,732	1,030,892,505	1,108,956,466
Exports merchandise	1,058,763,297	1,081,361,643	1,328,700,137	1,267,573,142	1,250,456,297
Total Trade	**1,952,130,164**	**1,878,294,180**	**2,256,028,869**	**2,298,465,647**	**2,359,412,763**

15.—External Trade of Canada, by Main Groups and Degree of Manufacture, according to Origin, year ended Mar. 31, 1928.

Origins.	Imports for Consumption.			Exports of Canadian Produce.		
	United Kingdom.	United States.	Total.	United Kingdom.	United States.	Total.
	$	$	$	$	$	$
Farm origin—						
1.—Canadian farm products[1]—						
Field Crops—						
Raw materials	687,776	29,586,888	41,723,071	274,096,264	26,854,677	419,749,542
Partly manufactured	15,968	3,292,094	3,375,808	279	40,549	173,325
Fully or chiefly manufactured	41,746,638	9,411,797	58,015,545	26,361,171	28,715,367	99,933,458
Total Canadian field crops	42,450,382	42,290,779	103,114,424	300,457,714	55,610,593	519,856,325
Animal husbandry—						
Raw materials	3,284,687	15,747,776	25,160,361	1,852,840	49,531,235	53,909,722
Partly manufactured	5,902,942	6,244,968	15,344,125	2,452,900	9,042,332	12,131,418
Fully or chiefly manufactured	33,033,207	8,676,008	56,461,566	30,491,063	6,368,387	42,484,430
Total Canadian animal husbandry	42,220,836	30,668,752	96,966,052	34,796,803	64,941,954	108,525,570
All Canadian farm products—						
Raw materials	3,972,463	45,334,664	66,883,432	275,949,104	76,385,912	473,659,264
Partly manufactured	5,918,910	9,537,062	18,719,933	2,453,179	9,082,881	12,304,743
Fully or chiefly manufactured	74,779,845	18,087,805	114,477,111	56,852,234	35,083,754	142,417,888
Total Canadian farm products	**84,671,218**	**72,959,531**	**200,080,476**	**335,254,517**	**120,552,547**	**628,381,895**
2.—Foreign farm products[1]—						
Field crops—						
Raw materials	1,703,313	69,827,187	84,812,552	3,569	–	15,360
Partly manufactured	80,616	10,550,198	44,247,881	2,752	311,556	329,503
Fully or chiefly manufactured	30,882,955	31,794,041	95,125,916	10,260,121	1,095,835	38,354,991
Total foreign field crops	32,666,884	112,171,426	224,186,349	10,266,442	1,407,391	38,699,854
Animal husbandry—						
Raw materials	309,531	4,907,794	6,769,251	–	–	–
Partly manufactured	118,549	110,231	4,220,211	–	–	–
Fully or chiefly manufactured	2,667,887	4,697,938	21,274,753	856	6,823	137,358
Total foreign animal husbandry	3,095,967	9,715,963	32,264,215	856	6,823	137,358
All foreign farm products—						
Raw materials	2,012,844	74,734,981	91,581,803	3,569	–	15,360
Partly manufactured	199,165	10,660,429	48,468,092	2,752	311,556	329,503
Fully or chiefly manufactured	33,550,842	36,491,979	116,400,669	10,260,977	1,102,658	38,492,349
Total foreign farm products	**35,762,851**	**121,887,389**	**256,450,564**	**10,267,298**	**1,414,214**	**38,837,212**
3.—All farm products—						
All field crops—						
Raw materials	2,391,089	99,414,075	126,535,623	274,099,833	26,854,677	419,764,902
Partly manufactured	96,584	13,842,292	47,623,689	3,031	352,105	502,828
Fully or chiefly manufactured	72,629,593	41,205,838	153,141,461	36,621,292	29,811,202	138,288,449
Total all field crops	75,117,266	154,462,205	327,300,773	310,724,156	57,017,984	558,556,179

[1] In this classification the expression "Canadian Farm Products" refers, in the case of exports, to commodities actually produced, in their original state, on Canadian farms. In the case of imports it covers all commodities of which the basic raw materials are such as Canadian farms produce. "Foreign Farm Products" covers, in both imports and exports, materials or commodities such as Canada does not produce in their original form, *e.g.*—cane sugar, tea, rubber, cotton, silk, etc.

15.—External Trade of Canada, by Main Groups and Degree of Manufacture, according to Origin, year ended Mar. 31, 1928—concluded.

Origins.	Imports for Consumption.			Exports of Canadian Produce.		
	United Kingdom.	United States.	Total.	United Kingdom.	United States.	Total.
	$	$	$	$	$	$
Farm origin—concluded.						
All animal husbandry—						
Raw materials	3,594,218	20,655,570	31,929,612	1,852,840	49,531,235	53,909,722
Partly manufactured	6,021,491	6,355,199	19,564,336	2,452,900	9,042,332	12,131,418
Fully or chiefly manufactured	35,701,094	13,373,946	77,736,319	30,491,919	6,375,210	42,621,788
Total all animal husbandry	45,316,803	40,384,715	129,230,267	34,797,659	64,948,777	108,662,928
All farm products—						
Raw materials	5,985,307	120,069,645	158,465,235	275,952,673	76,385,912	473,674,624
Partly manufactured	6,118,075	20,197,491	67,188,025	2,455,931	9,394,437	12,634,246
Fully or chiefly manufactured	108,330,687	54,579,784	230,877,730	67,113,211	36,186,412	180,910,237
Total farm origin	**120,434,069**	**194,846,920**	**456,531,040**	**345,521,815**	**121,966,761**	**667,219,107**
Wild life origin—						
Raw materials	634,556	9,601,200	10,969,929	9,135,626	14,632,470	24,975,597
Partly manufactured	206,093	949,999	2,290,591	10,385	98,884	179,174
Fully or chiefly manufactured	213,443	174,171	450,282	25,613	68,523	112,837
Total wild life origin	**1,054,092**	**10,725,370**	**13,710,802**	**9,171,624**	**14,799,877**	**25,267,608**
Marine origin—						
Raw materials	8,927	765,026	1,109,371	292,011	10,470,247	11,792,552
Partly manufactured	–	–	–	–	–	–
Fully or chiefly manufactured	221,089	538,485	2,673,570	5,156,150	4,600,444	23,942,844
Total marine origin	**230,016**	**1,303,511**	**3,782,941**	**5,448,161**	**15,070,691**	**35,735,396**
Forest origin—						
Raw materials	8,415	984,611	1,246,148	101,618	22,479,364	24,502,586
Partly manufactured	26,926	14,180,184	14,283,931	11,872,342	80,870,086	107,936,305
Fully or chiefly manufactured	4,351,013	30,149,530	38,016,098	5,203,569	135,647,537	152,168,595
Total forest origin	**4,386,354**	**45,314,325**	**53,546,177**	**17,177,529**	**238,996,987**	**284,607,486**
Mineral origin—						
Raw materials	6,979,761	89,940,485	112,017,864	7,977,725	29,308,366	45,084,247
Partly manufactured	1,755,945	14,250,509	16,8[illegible]7,817	8,131,986	31,779,263	66,865,259
Fully or chiefly manufactured	31,164,208	306,300,763	360,806,415	10,019,484	15,080,978	78,761,448
Total mineral origin	**39,899,914**	**410,491,757**	**489,642,096**	**26,129,195**	**76,168,607**	**190,710,954**
Mixed origin—						
Raw materials	–	–	–	–	–	–
Partly manufactured	514,738	2,445,604	4,477,063	237,356	1,376,004	1,766,465
Fully or chiefly manufactured	19,376,674	54,308,750	87,266,347	7,005,712	9,624,719	22,900,590
Total mixed origin	**19,891,412**	**56,754,354**	**91,743,410**	**7,243,068**	**11,000,723**	**24,667,055**
Recapitulation—						
Raw materials	13,616,966	221,360,967	283,808,547	293,459,653	153,276,359	580,029,606
Partly manufactured	8,621,777	52,023,787	105,057,427	22,708,000	123,518,674	189,381,449
Fully or chiefly manufactured	163,657,114	446,051,483	720,090,492	94,523,739	201,208,613	458,796,551
Grand Total	**185,895,857**	**719,436,237**	**1,108,956,466**	**410,691,392**	**478,003,646**	**1,228,207,606**

16.—Summary of the Trade of Canada, by Main Groups, compiled on a classification according to Purpose, fiscal year ended Mar. 31, 1928.

Groups.	Imports for Consumption.			Exports of Canadian Produce.		
	United Kingdom.	United States.	Total.	United Kingdom.	United States.	Total.
Foods, Beverages and Smokers' Supplies.	$	$	$	$	$	$
Foods	5,537,064	61,368,573	135,224,335	335,958,166	71,286,106	591,181,540
Animals for food	400	170,976	171,386	130,140	15,847,114	16,203,090
Breadstuffs	285,254	11,143,850	19,441,456	290,022,191	10,868,409	455,672,730
Grains	66,987	9,367,288	17,355,441	266,221,508	10,780,819	391,695,566
Flour and other milled products	27,437	945,252	1,003,681	21,762,580	48,127	61,754,199
Flour and meal	25,528	833,843	893,330	21,762,580	48,127	61,754,199
Other milled products	1,909	111,409	113,351	–	–	–
Bakery products and prepared foods	190,830	831,310	1,079,334	2,038,103	39,463	2,222,965
Other farinaceous substances	181,541	1,334,072	1,780,132	–	–	110,497
Cocoa and chocolate	706,243	863,858	4,650,485	–	–	–
Fish	219,787	951,030	3,049,382	5,416,954	13,776,605	33,473,962
Fresh or frozen	1,594	592,218	799,335	260,804	10,161,789	10,524,343
Dried, salted, smoked or pickled	82,765	113,369	1,031,647	31,449	2,237,538	9,417,469
Canned or otherwise preserved	135,428	245,443	1,218,400	5,124,701	1,377,278	13,532,150
Fruits	721,437	29,945,260	34,179,210	4,074,110	746,825	5,475,713
Fresh	103,076	23,795,082	24,859,503	3,626,196	723,746	4,748,612
Dried	467,936	4,455,691	6,311,756	12,835	12,720	222,801
Canned or otherwise preserved	210,425	1,694,487	3,007,951	435,079	10,359	504,300
Meats	310,040	3,609,366	4,585,535	11,741,991	11,288,594	24,472,478
Lard, lard compound and substitutes	2,465	73,015	137,635	176,250	7,424	677,385
Milk and its products	491,909	259,746	6,144,414	18,981,970	10,906,142	33,985,240
Milk and cream, fresh	–	13,851	15,588	926	7,839,811	7,841,482
Milk preparations and products	491,909	245,895	6,128,826	18,981,044	3,066,331	26,143,758
Nuts	126,806	1,557,318	5,058,030	22,708	770	24,601
Oils	101,650	342,864	1,286,849	–	–	–
Salt	262,327	649,918	1,067,104	–	219	25,561
Spices	614,702	247,240	1,487,515	–	–	–
Sugar and sugar products	832,817	1,297,776	38,821,678	3,046,085	1,274,301	8,407,424
Vegetables	430,179	6,496,376	8,175,549	1,730,977	5,811,009	10,474,192
Vinegar	39,566	50,690	98,472	295	16,009	16,994
Yeast	78	406,582	408,346	–	–	–
Other articles of food	209,863	1,968,636	4,681,157	614,495	742,685	2,161,673
Beverages and infusions	44,699,147	859,943	64,971,946	297,170	24,144,529	27,528,176
Beverages, alcoholic	38,692,726	6,765	45,900,187	124,172	24,132,188	27,287,137
Beverages, non-alcoholic	46,419	215,016	412,829	172,998	5,605	220,026
Lime and other fruit juices	35,344	142,003	200,076	172,998	5,045	207,432
Mineral waters	11,075	73,013	212,753	–	560	12,594
Infusions	5,960,002	638,162	18,658,930	–	6,736	21,013
Cocoa and chocolate	13,952	92,735	138,409	–	–	–
Coffee and chicory	666,121	514,732	6,210,107	–	6,736	21,013
Tea	5,279,929	30,695	12,310,414	–	–	–
Smokers' supplies	1,465,663	331,080	2,742,470	765	9,159	77,538
Tobacco, manufactured	771,690	264,133	1,182,236	765	9,159	77,538
Other smokers' supplies	693,973	66,947	1,560,234	–	–	–
Personal and Household Utilities.						
Books, printed matter, stationery and educational supplies	2,988,386	14,027,143	18,441,097	411,784	968,174	1,890,886
Books, pamphlets, printed matter and maps	1,828,251	10,273,653	12,656,699	140,545	800,906	1,131,963
Books	1,585,863	3,619,764	5,701,009	24,326	114,871	167,195
Charts and maps	13,331	92,377	108,446			
Newspapers	11,591	2,976,218	2,994,838	116,219	686,035	964,768
Printed matter, n.o.p.	217,466	3,585,294	3,852,406			
Stationery	542,336	1,407,021	2,349,417	167,568	40,575	514,040
Educational equipment (except text books)	90,332	662,659	840,638	80,416	27,074	116,477
Works of art	527,467	1,683,810	2,594,343	23,255	99,619	128,406

16.—Summary of the Trade of Canada, by Main Groups, compiled on a classification according to Purpose, fiscal year ended Mar. 31, 1928—continued.

Groups.	Imports for Consumption.			Exports of Canadian Produce.		
	United Kingdom.	United States.	Total.	United Kingdom.	United States.	Total.
Personal and Household Utilities—concluded.	$	$	$	$	$	$
Clothing	11,775,810	8,407,845	26,337,529	2,803,710	307,884	8,543,274
Blouses and shirtwaists	2,309	11,037	15,468	–	–	–
Boots and shoes	1,146,265	2,002,750	3,251,160	2,383,811	208,637	6,629,036
Gloves and mitts	765,187	143,645	2,487,961	12,813	1,532	220,327
Handkerchiefs	1,418,161	28,207	2,169,200	–	–	–
Hats and caps	1,447,420	947,125	3,224,189	25	865	70,479
Hosiery	2,409,660	1,466,524	4,031,617	3,554	950	267,012
Shawls	61,694	34,843	125,753	–	–	–
Shirts	45,342	33,753	87,035	–	–	–
Underwear	350,773	84,936	500,337	31,244	5,015	188,244
Miscellaneous clothing	4,128,999	3,654,975	10,446,809	372,263	90,885	1,168,176
Household utilities	12,945,857	12,966,292	31,530,225	2,396,000	138,342	7,474,162
Bedding	1,387,438	522,828	2,040,628	1,325	1,825	34,009
Cutlery	403,395	136,832	704,376	–	–	–
Floor coverings	1,833,372	433,655	3,768,137	2,299	5,377	104,638
Wool carpets	1,326,368	187,914	2,806,392	1,894	5,377	46,476
Other floor covering	507,004	245,741	901,745	405	–	58,162
Furniture	422,329	2,512,776	3,184,985	65,596	29,881	424,884
Glassware, chinaware and pottery	2,915,377	917,468	5,827,504	1,904	9,475	14,985
Glassware	55,344	572,769	901,029	–	–	–
Chinaware and pottery	2,860,033	344,699	4,926,475	1,904	9,475	14,985
Household linen	3,066,425	485,180	4,083,048	–	–	–
Household machinery	289,882	2,128,732	2,425,922	1,061,097	7,120	4,909,701
Kitchen equipment	178,353	2,707,873	2,999,946	33,664	42,447	213,780
Soap	147,693	891,230	1,175,720	878,408	152	988,420
Window curtains and fixtures	629,960	228,629	1,035,378	–	–	–
Miscellaneous household utilities	1,671,633	2,001,088	4,344,581	351,707	42,065	783,745
Jewelry, personal ornaments and timepieces	1,378,965	2,517,644	8,929,776	10,210	6,177	22,319
Jewelry and personal ornaments	1,303,961	1,298,680	5,625,978	10,210	6,177	22,319
Timepieces	75,004	1,218,964	3,303,798	–	–	–
Personal utilities	997,252	1,683,750	4,215,104	53,825	31	1,774,322
Toilet articles	449,750	1,028,827	2,417,687	53,825	31	1,774,322
Other personal utilities	547,502	654,923	1,797,417	–	–	–
Recreation equipment and supplies	819,125	5,201,712	7,422,876	1,409,206	1,748,749	5,004,215
Musical instruments and accessories	118,376	2,063,052	2,515,023	49,123	220,744	1,272,143
Picture machines and accessories	90,363	946,292	1,050,110	1,341,457	1,397,042	3,542,406
Equipment for indoor games	76,866	38,418	122,183	–	–	–
Miscellaneous articles for amusement	533,520	2,153,950	3,735,560	18,626	130,963	189,666
Electrical Equipment.						
Batteries	239,877	440,045	681,415	15,604	29,430	371,220
Dynamos and motors	884,461	3,232,141	4,292,751	234	16,588	25,867
Lighting equipment	25,654	1,307,237	1,616,081	–	–	–
Transmission equipment	23,036	841,024	877,857	7,286	3,327,092	3,467,248
Other electric apparatus	603,768	13,193,490	13,971,815	280,725	71,386	1,809,425
Producers' Equipment.						
Abrasives	229,363	3,106,425	3,387,972	217,109	2,553,676	2,917,296
Containers, wrapping and packing materials	2,585,462	7,448,115	12,108,922	356,413	372,265	2,787,042
Bags and sacks	87,488	495,156	663,667	63,231	23,451	207,477
Barrels	46,641	345,035	400,936	–	18,098	60,595
Cordage (except binder twine)	383,942	149,012	556,876	15,049	4,942	160,878
Wrapping paper	93,586	760,067	1,085,510	272,864	966	1,642,972
Miscellaneous containers, etc	1,973,805	5,697,845	9,401,933	5,269	324,808	715,120

16.—Summary of the Trade of Canada, by Main Groups, compiled on a classification according to Purpose, fiscal year ended Mar. 31, 1928—continued.

Groups.	Imports for Consumption.			Exports of Canadian Produce.		
	United Kingdom.	United States.	Total.	United Kingdom.	United States.	Total.
Producers' Equipment —concluded.	$	$	$	$	$	$
Farm equipment	654,288	31,159,139	33,266,372	720,021	5,896,802	19,141,851
Agricultural implements and machinery	205,205	29,193,464	29,705,445	638,584	3,659,236	15,784,440
Dairying equipment	7,907	560,389	824,891	11,701	40,672	77,197
Engines for farm purposes	107,177	17,038,734	17,148,697	–	136,633	141,059
Planting and tillage implements	10,281	3,382,318	3,405,724	81,457	1,027,549	4,439,790
Harvesting equipment	10,524	1,798,352	1,828,512	252,273	24,828	3,649,069
Seed separation machinery	14	5,201,405	5,201,419	2,538	1,082,659	3,549,380
Other agricultural implements and machinery and parts of	69,302	1,212,266	1,296,202	290,615	1,346,895	3,927,945
Animals (except animals for food)	235,099	673,730	947,967	26,110	1,455,533	2,283,674
Animals for improvement of stock	207,829	338,211	581,365	12,772	1,271,368	1,857,665
Other animals	27,270	333,519	366,602	13,338	184,165	426,009
Fencing materials	17,025	349,763	462,749	51,600	542,177	817,718
Harness and horse equipment	140,568	197,420	341,563	250	5,193	8,718
Plants, trees and shrubs	55,927	226,665	1,289,300	3,477	234,663	247,301
Miscellaneous farm equipment	464	518,097	519,348	–	–	–
Industrial equipment	7,345,130	47,762,344	57,144,910	1,034,438	1,058,058	4,462,668
Fisheries equipment	1,358,458	1,260,290	2,868,198	–	44,666	45,338
Industrial and trade machinery (except mining, electrical and printing machinery, boilers and engines)	4,139,832	32,500,315	37,554,887	338,892	910,427	2,304,146
Construction machinery	15,597	1,226,020	1,241,617	–	590,681	600,330
Office or business machinery	7,572	2,592,246	2,623,253	123,899	16,704	276,716
Metal-working machinery	114,135	4,779,231	4,923,362	4,535	6,385	262,538
Pulp and paper-making machinery	1,101,423	2,326,134	3,519,535	73,707	23,537	486,898
Textile and cordage machinery	1,307,659	3,350,621	4,949,162	–	–	–
Other industrial machinery	1,593,446	18,226,063	20,297,958	137,751	273,120	677,664
Mining and metallurgical equipment	386,968	3,351,910	3,783,476	–	–	–
Printing equipment	208,358	4,355,927	4,695,389	2,946	9,602	15,138
Photographic equipment	55,312	581,302	758,393	400,703	3,699	639,520
Tools, n.o.p.	272,656	1,864,810	2,551,118	46,205	16,686	296,790
Transmission equipment (except electrical)	212,734	610,213	842,984	47,564	470	496,748
Miscellaneous industrial equipment	710,812	3,237,577	4,090,465	197,128	72,508	664,988
Light, heat and power equipment and supplies (except electrical and transportation)	7,451,051	77,610,870	86,999,359	281,134	3,186,349	7,462,322
Boilers and engines (except farms)	511,623	2,618,367	3,231,764	8,157	11,238	146,816
Fuel	6,796,092	72,629,824	81,006,675	216,345	3,088,309	6,154,927
Coal	6,688,075	52,588,061	59,355,564	216,345	2,114,927	4,745,856
Fuel oils	513	15,154,045	16,546,166	–	50,156	524,348
Other fuels	107,504	4,887,718	5,104,945	–	873,226	884,723
Illuminants	2,158	517,704	552,236	2,224	134,820	1,052,296
Other light, heat and power equipment	141,178	1,844,975	2,208,684	54,408	1,937	108,183
Lubricating oils and greases	246,251	3,716,756	3,964,755	7,256	11,917	87,028
Producers' Materials.						
Building and construction materials	2,708,205	29,681,845	35,975,718	8,868,924	58,560,450	79,473,082
Asphalt and its products	7,625	961,842	973,052	–	–	–
Brick and tile	495,928	2,195,330	2,818,305	–	74,099	105,811

16.—Summary of the Trade of Canada, by Main Groups, compiled on a classification according to Purpose, fiscal year ended Mar. 31, 1928—continued.

Groups.	Imports for Consumption.			Exports of Canadian Produce.		
	United Kingdom.	United States.	Total.	United Kingdom.	United States.	Total.
	$	$	$	$	$	$
Producers' Materials—concluded.						
Building and construction Materials—concluded.						
Cement, lime and plaster.	2,895	267,924	278,768	–	447,843	796,423
Glass for building	576,380	251,396	2,200,262	–	–	–
Structural iron	81,776	7,885,965	8,283,681	–	2,686	225,607
Iron piping	213,939	1,916,034	2,289,559	119,603	666,741	1,754,597
Nails	11,234	30,949	84,889	8,302	8,135	380,517
Lumber and timber	3,455	8,889,382	8,930,813	8,017,068	56,253,377	72,593,006
Paints and painters' materials	710,784	3,265,608	4,882,952	144,292	60,047	420,197
Paints and varnishes	185,482	640,099	847,200	140,264	25,761	371,574
Painters' materials	525,302	2,625,509	4,035,752	4,028	34,286	48,623
Stone, marble and slate	101,700	716,964	1,003,532	175	111,766	130,226
Railway materials	8,973	1,785,443	1,846,416	39,412	733,400	1,899,342
Miscellaneous construction materials	493,516	1,515,008	2,383,489	540,072	202,356	1,167,356
Farm materials	471,995	5,814,829	9,848,593	1,771,748	13,315,487	18,242,109
Fertilizers	63,481	3,255,606	4,540,247	–	4,779,776	5,417,890
Fodders	7,844	502,870	511,209	1,337,533	5,564,603	7,865,666
Seeds	263,882	1,076,116	2,275,431	422,232	2,147,945	2,905,538
Miscellaneous farm materials	136,788	980,237	2,521,706	11,983	823,158	2,053,015
Manufacturers' materials	67,610,309	238,135,181	377,377,042	40,786,379	282,284,115	379,074,766
For explosives and ammunition	112,488	183,929	536,177	–	–	–
For textiles, clothing and cordage	50,244,688	53,798,139	141,157,947	769,107	2,414,274	3,747,520
Fibres for spinning or cordage manufacture.	7,321,711	35,887,688	46,803,834	719,556	2,383,308	3,203,648
Yarn for weaving or knitting	5,694,449	2,813,065	10,363,378	–	–	–
Piece goods for clothing.	32,484,806	10,658,575	66,627,217	901	7,683	153,822
Thread for sewing	776,569	426,652	1,221,520	–	–	–
Buttons and materials for	29,157	265,871	614,185	1,871	837	3,805
Corset materials	5,582	140,415	146,705	–	–	–
Hat materials	368,440	943,903	2,852,568	–	–	–
Other textile, clothing and cordage materials	3,563,974	2,661,970	12,528,540	46,779	22,443	386,245
For dyeing and tanning	141,026	2,560,984	3,954,616	–	23,747	25,622
For fur and leather goods	2,788,864	27,148,239	36,310,435	11,612,487	33,948,440	47,144,988
Furs	1,145,997	12,102,748	15,694,982	9,159,587	14,267,228	24,202,407
Hides	128,244	10,184,917	14,140,338	–	11,441,431	11,739,177
Leather	1,501,004	4,398,312	5,950,105	2,452,900	8,239,781	11,203,404
Other materials	13,619	462,262	515,010	–	–	–
For smelters and metal refineries	290,022	9,463,508	11,840,478	6,640,353	26,481,838	37,168,709
For foundries	347,596	3,486,775	3,941,982	5,530,213	4,651,025	23,334,117
For machinery, implements, tools and cutlery	42,235	6,649,544	6,747,156	19,170	16,888	66,714
For electrical goods	23,325	688,429	808,112	–	–	–
For furniture and wood wares	31,287	5,676,209	5,768,701	482,048	112,793	1,345,591
Cabinet woods	24,180	3,253,759	3,319,889	99,868	29,339	193,580
Other materials	7,107	2,422,450	2,448,812	382,180	83,454	1,149,011
For musical instruments	67,602	309,547	441,641	–	–	–
For wood pulp	306,356	3,281,427	3,597,305	–	15,182,842	15,182,842
For paper-making	282,451	2,247,676	2,718,646	3,330,179	39,518,820	49,355,398
For paper goods, printing and bookbinding	387,586	2,584,345	3,032,181	3,342,714	119,826,231	131,181,144
For rubber-working industries	84,865	22,322,069	24,422,401	–	270,767	281,389
For vehicles (not including complete parts)	546,450	2,727,960	3,275,228	–	–	–
For vessels	1,116,357	1,674,754	2,882,109	3,638	47,539	56,120
Other materials for chemical-using industries	724,911	4,507,853	6,569,628	2,549,305	3,153,747	8,223,653
Other materials for metal-working industries	7,992,928	38,699,826	49,906,132	1,960,114	16,001,951	29,852,535
Other materials for wood-using industries	5,111	522,563	762,251	393,340	4,181,473	6,457,247
Other manufacturers' materials	2,074,161	49,601,405	68,703,916	4,153,711	16,461,740	25,651,177

16.—Summary of the Trade of Canada, by Main Groups, compiled on a classification according to Purpose, fiscal year ended Mar. 31, 1928—concluded.

Groups.	Imports for Consumption.			Exports of Canadian Produce.		
	United Kingdom.	United States.	Total.	United Kingdom.	United States.	Total.
	$	$	$	$	$	$
Transportation.						
Vehicles	1,407,984	84,177,051	85,664,393	8,555,593	272,101	48,175,560
Automobiles and parts	491,226	79,078,965	79,617,199	4,801,847	156,071	27,407,635
Other motor vehicles, not for railways	21,369	442,272	463,776	1,180	390	1,720
Bicycles and tricycles	132,246	48,387	187,194	98	1,464	26,927
Railway rolling stock	53,391	2,103,433	2,159,488	500	53,272	330,317
Locomotives	–	558,874	558,874	–	45,292	60,873
Motor cars	–	110,394	110,394	500	7,980	269,444
Other cars	53,391	1,434,165	1,490,220			
Other vehicles	702,379	2,129,213	2,846,725	1,107	33,971	134,624
Rubber tires	7,373	374,781	390,011	3,750,861	26,933	20,274,337
Vessels	224,013	2,020,441	1,273,784	1,737	181,432	609,767
Ships and boats	128,480	546,844	698,644	1,737	181,432	609,767
Equipment for ships	95,533	473,597	575,140	–	–	–
Medical Supplies						
Alkaloids and their salts	82,226	80,660	234,428	–	–	–
Biological medicines	2,210	358,897	448,280	–	–	–
Drugs, crude	5,058	171,443	250,679	16,734	285,601	357,638
Medicinal and pharmaceutical preparations	850,547	1,641,981	3,117,888	157,489	12,934	449,878
Oils and gums, chiefly for medicinal use	81,784	185,670	565,564	–	170,074	177,671
Medical, surgical and dental equipment and materials	219,269	2,790,070	3,216,921	–	–	–
Arms, Explosives and War Stores.						
Arms	125,251	282,786	508,988	200	95	375
Military equipment	20,068	1,121	27,900	–	–	–
Ammunition for explosives	79,169	776,671	889,629	866	1,433	191,325
Goods for Exhibition.						
Animals	–	1,381,411	1,381,411	–	443,017	443,017
Other goods	640,478	2,097,876	2,827,730	–	–	–

17.—Value of Total Exports, Imports entered for Consumption, and Duty collected thereon, at certain Ports and by Provinces, during the fiscal years ended Mar. 31, 1927 and 1928.

NOTE.—The values of imports and exports at the several ports of entry given in the following table indicate that merchandise of the value stated was entered inwards or passed outwards at the port mentioned, but do not imply that the imports were all for consumption at such ports or that the exports originated there.

Ports.	1927.			1928.		
	Total Exports.	Imports for Consumption.	Duty Collected.	Total Exports.	Imports for Consumption.	Duty Collected.
	$	$	$	$	$	$
P. E. Island.						
Total	**1,349,067**	**1,180,953**	**162,678**	**1,265,888**	**1,734,583**	**186,620**
Nova Scotia.						
Halifax	36,040,816	16,303,493	2,646,714	35,819,784	19,908,515	2,793,297
Sydney	6,031,546	1,741,527	129,022	4,050,054	2,078,198	176,711
Yarmouth	2,538,940	1,283,601	55,338	2,420,068	1,285,327	54,906
Total [1]	**53,226,985**	**23,479,462**	**3,311,671**	**52,191,512**	**27,746,453**	**3,514,904**
New Brunswick.						
McAdam Jct	14,960,051	302,731	33,192	14,074,299	281,722	23,212
Fredericton	–	1,200,118	322,630	–	2,031,145	649,226
Moncton	180,995	1,977,316	357,325	361,629	2,134,767	393,442
Saint John	79,149,671	21,338,672	4,805,104	50,466,168	17,357,214	2,639,024
Total [1]	**109,973,185**	**28,279,707**	**5,824,484**	**71,521,545**	**25,227,984**	**4,004,245**

[1] Includes other smaller ports.

17.—Value of Total Exports, Imports entered for Consumption, and Duty collected thereon, at certain Ports and by Provinces, during the fiscal years ended Mar. 31, 1927 and 1928—continued.

Ports.	1927.			1928.		
	Total Exports.	Imports for Consumption.	Duty Collected.	Total Exports.	Imports for Consumption.	Duty Collected.
Quebec.						
Athelstan	33,307,192	4,023,007	208,847	33,743,853	3,680,673	210,925
Beebe Jct	9,603,371	1,358,489	123,654	7,600,961	1,440,890	140,746
Chicoutimi	2,819,893	5,518,692	744,947	6,391,557	5,766,473	325,733
Coaticook	17,079,272	412,854	26,787	16,576,493	426,211	36,102
Hull	–	2,979,645	392,093	–	2,573,928	291,897
Montreal	216,947,753	212,901,307	35,536,904	187,612,703	227,916,633	36,999,656
Quebec	17,877,730	15,509,185	2,350,997	14,814,794	19,940,309	2,933,360
St. Armand	15,949,896	227,987	24,228	13,352,763	323,901	38,458
St. Hyacinthe	784	5,409,350	562,745	493	7,399,242	675,788
St. Johns	62,015,787	9,168,509	770,513	63,631,855	8,523,005	742,778
Shawinigan Falls	–	5,436,889	296,426	–	5,413,374	254,897
Sherbrooke	615,075	8,001,055	853,262	474,878	9,215,252	918,924
Sutton	14,773,374	397,431	40,407	11,712,839	267,481	48,956
Three Rivers	3,342,425	5,542,589	495,448	3,835,953	6,703,168	604,433
Total [1]	**398,907,416**	**282,195,062**	**42,700,537**	**362,860,712**	**305,065,264**	**44,528,478**
Ontario.						
Belleville	297,523	2,835,658	439,240	381,588	2,648,980	437,837
Brantford	13,727	7,323,562	490,074	7,804	7,659,474	564,350
Bridgeburg	72,594,132	4,559,927	666,148	72,778,951	5,326,719	749,742
Chatham	13,040	5,749,793	922,845	420,861	5,454,998	864,617
Cobourg	1,858,280	1,650,660	273,156	2,110,032	1,783,593	235,050
Cornwall	3,351,619	2,844,410	183,467	4,306,590	3,060,395	196,691
Fort Frances	15,640,522	2,144,936	438,095	19,347,308	2,043,440	391,494
Fort William	82,047,529	6,689,815	994,365	86,519,016	6,432,329	1,096,868
Galt	–	5,777,430	430,720	1,802	5,902,974	497,175
Guelph	–	4,307,293	359,563	–	4,755,708	439,729
Hamilton	4,476,135	42,212,891	4,402,061	4,260,532	42,236,584	4,439,129
Kingston	216,469	2,445,349	185,560	244,718	2,976,565	261,867
Kitchener	–	13,023,139	903,596	–	13,983,286	1,177,945
London	–	11,585,767	1,589,760	–	12,316,421	1,721,455
Niagara Falls	97,985,211	8,429,512	1,113,044	95,254,640	10,486,808	1,533,669
North Bay	428,725	3,740,642	528,699	517,180	4,137,663	618,701
Oshawa	1,448	24,877,254	6,188,438	1,557	32,146,638	8,063,137
Ottawa	–	13,396,531	1,902,310	–	15,117,799	2,381,701
Parry Sound	111,685	1,106,153	273,298	74,180	1,647,023	299,906
Peterborough	–	7,066,561	999,902	833	8,165,207	1,220,696
Port Arthur	105,828,148	2,760,979	406,577	104,106,965	2,095,466	434,135
Prescott	9,089,928	2,995,982	402,103	10,460,132	3,639,556	482,776
St. Catharines	970,904	5,946,940	757,573	504,833	5,527,165	691,640
St. Thomas	–	2,240,510	350,414	70,162	2,226,660	351,811
Sarnia	43,753,048	16,673,576	900,886	39,108,625	14,282,139	858,851
Sault Ste. Marie	13,954,128	5,446,337	767,796	11,090,917	6,340,452	869,138
Stratford	–	2,830,141	343,584	–	2,938,389	376,901
Toronto	1,921,776	228,015,957	35,687,329	1,522,355	242,213,317	41,729,836
Wallaceburg	2,362,493	1,977,425	434,812	1,721,317	4,437,614	516,410
Welland	1,042,219	10,918,112	697,187	2,974,892	11,506,511	640,023
Windsor	52,856,367	43,878,552	9,178,248	56,497,150	44,433,222	9,459,687
Total [1]	**514,395,535**	**518,815,245**	**75,201,221**	**519,621,017**	**553,847,936**	**85,960,295**
Manitoba.						
Brandon	68,079	1,306,813	151,673	74,584	1,684,175	189,677
Emerson	15,276,142	614,057	46,139	18,226,495	1,076,002	87,619
Winnipeg	62,684	46,746,111	8,827,078	50,605	48,950,520	9,050,669
Total [1]	**15,496,501**	**49,332,083**	**9,096,993**	**18,398,513**	**52,820,449**	**9,437,568**
Saskatchewan.						
Moose Jaw	85,494	2,267,372	347,044	78,662	4,122,080	448,465
North Portal	9,719,185	713,611	42,440	10,424,317	1,033,375	62,188
Regina	44,595	11,060,133	1,973,356	69,368	13,957,839	2,305,427
Saskatoon	–	5,237,701	674,981	–	6,831,933	751,937
Total [1]	**9,849,274**	**20,700,339**	**3,088,802**	**10,572,347**	**26,645,363**	**3,631,496**

[1] Includes other smaller ports.

17.—Value of Total Exports, Imports entered for Consumption, and Duty collected thereon, at certain Ports and by Provinces, during the fiscal years ended Mar. 31, 1927 and 1928—concluded.

Ports.	1927.			1928.		
	Total Exports.	Imports for Consumption.	Duty Collected.	Total Exports.	Imports for Consumption.	Duty Collected.
Alberta.	$	$	$	$	$	$
Calgary	–	9,741,058	1,916,661	–	12,167,854	2,242,352
Edmonton	–	6,612,963	1,357,682	–	8,725,528	1,647,715
Lethbridge	1,153,353	4,900,621	220,875	948,037	4,389,117	264,039
Medicine Hat	–	339,262	41,283	–	617,649	49,910
Total	**1,153,353**	**21,593,904**	**3,536,500**	**948,037**	**25,900,148**	**4,204,017**
British Columbia.						
Abbotsford	5,992,213	326,120	42,915	4,230,178	476,986	61,731
Cranbrook	2,350,573	552,710	78,868	1,743,127	520,251	68,188
Fernie	1,432,331	434,965	146,566	1,515,735	438,885	140,373
Nanaimo	5,674,031	394,517	60,542	6,982,012	423,189	54,167
New Westminster	14,512,819	2,467,611	403,217	12,760,754	2,151,132	364,233
Prince Rupert	20,617,981	1,478,461	292,398	27,050,065	1,077,674	191,451
Vancouver	116,920,027	69,390,839	12,606,353	153,021,338	74,002,310	13,050,236
Victoria	3,854,562	8,013,065	1,943,460	3,601,400	8,316,144	2,016,828
Total [1]	**172,075,161**	**84,936,551**	**15,943,964**	**211,569,087**	**89,569,052**	**16,314,143**
Yukon Territory.						
Total	**2,141,671**	**343,174**	**90,914**	**1,507,639**	**362,582**	**82,555**
Prepaid postal parcels, duty received through P.O Department	–	36,025	8,603	–	36,658	8,447
Grand Total	**1,267,573,142**	**1,030,892,505**	**158,966,367**	**1,250,456,297**	**1,108,956,466**	**171,872,768**

[1] Includes other smaller ports.

18.—Dutiable Imports of Canada, by values entered for consumption from British Empire and Foreign Countries under the General, Preferential and Treaty Rate Tariffs in the fiscal years ended Mar. 31, 1927 and 1928.

Countries.	1927.			1928.		
	General Tariff.	Preferential Tariff.	Treaty Tariff.	General Tariff.	Preferential Tariff.	Treaty Tariff.
British Empire.	$	$	$	$	$	$
United Kingdom	27,610,451	105,787,958	1,572,518	41,270,232	107,102,956	1,680,415
Africa—British East	–	425,055	–	12,312	1,148,823	146
British South	7,802	809,291	40	2,370	94,557	77
British West	106,269	–	–	83,220	247	414,916
Australia	206,758	4,811,178	13,585	74,868	3,193,820	36,548
British East Indies—						
British India	101,576	7,392,125	–	293,669	7,855,165	659
Ceylon	11,782	2,288,237	–	21,102	2,461,618	–
Straits Settlements	28,085	414,130	3,303	48,668	417,418	4,213
Other	22,674	–	–	5,126	–	–
British Guiana	4,756	4,551,709	17	29,740	6,027,735	–
British West Indies—						
Barbados	28,279	2,090,820	–	32,271	4,079,481	–
Jamaica	26,603	2,847,433	18	14,089	3,502,127	151
Trinidad and Tobago	50,144	2,568,137	14	61,347	1,563,465	36,440
Other	75,724	1,877,802	483	66,806	2,956,955	8
Fiji	495	1,226,122	–	3,897	4,311,548	–
Hong Kong	958,322	–	83,567	1,053,837	–	48,562
Newfoundland	76,735	–	479	93,160	–	290
New Zealand	253,977	1,590,964	214	124,184	4,847,901	400
Other British countries	57,538	36,755	1,072	100,760	30,288	13,885
Total, British Empire	**29,628,020**	**138,717,716**	**1,675,310**	**43,391,658**	**149,594,104**	**2,236,710**

18.—Dutiable Imports of Canada, by values entered for consumption from British Empire and Foreign Countries under the General, Preferential and Treaty Rate Tariffs in the fiscal years ended Mar. 31, 1927 and 1928—concluded.

Countries.	1927.			1928.		
	General Tariff.	Preferential Tariff.	Treaty Tariff.	General Tariff.	Preferential Tariff.	Treaty Tariff.
Foreign Countries.	$	$	$	$	$	$
Argentina	1,670,326	–	56,055	1,895,636	–	115,947
Belgium	2,006,032	–	4,547,138	1,901,655	–	5,113,186
Denmark	27,125	–	34,532	35,426	–	51,462
France	1,568,995	–	20,912,395	1,267,966	–	23,653,840
Germany	11,223,514	–	–	13,018,133	–	–
Italy	570,384	–	2,377,650	641,287	–	2,719,458
Japan	981,046	–	8,785,496	1,029,900	–	9,423,559
Netherlands	2,289,251	–	1,786,287	3,116,125	–	1,903,047
Norway	64,415	–	701,638	40,905	–	860,540
Spain	1,152,821	–	769,496	1,181,679	–	1,061,925
Sweden	382,206	–	782,891	421,524	–	1,002,169
Switzerland	1,391,784	–	7,585,010	1,543,582	–	6,490,813
United States	392,665,317	–	–	416,047,644	–	–
Other foreign countries	25,356,811	–	187,340	18,962,160	–	1,328,188
Total, Foreign Countries	**441,350,027**	**–**	**48,525,940**	**461,103,622**	**–**	**53,724,134**
Total Dutiable Imports entered for Consumption	**470,978,047**	**138,717,716**	**50,201,250**	**504,495,280**	**149,594,104**	**55,960,844**

19.—Values of Imports into Canada of Merchandise entered for Consumption from the British Empire and from Foreign Countries in the five fiscal years ended Mar. 31, 1924-1928.

Countries.	1924.	1925.	1926.	1927.	1928.
British Empire.	$	$	$	$	$
United Kingdom	153,586,690	151,083,946	163,731,210	163,939,065	185,895,857
Irish Free State	–	3,969	19,318	47,140	29,611
Aden	39,287	32,575	50,320	28,994	14,546
Africa—British East	17,444	792,169	102,682	476,974	1,223,113
British South	98,410	86,144	129,579	1,001,592	404,364
British West	284,294	195,785	1,507,818	1,030,122	1,939,313
Bermuda	51,534	74,839	77,097	112,185	53,642
British East Indies—British India	9,274,852	8,435,082	9,477,453	7,880,914	9,239,779
Ceylon	3,082,304	2,726,787	2,747,442	2,612,831	2,731,531
Straits Settlements	2,010,082	1,693,462	4,674,388	2,756,817	2,459,045
Other	24,244	86,267	27,819	40,016	6,150
British Guiana	6,221,841	6,938,760	4,503,203	4,592,106	6,072,172
British Honduras	170,461	119,870	271,293	262,262	157,925
British Sudan	–	5,018	13,534	21,437	6,844
British West Indies—Barbados	7,020,415	6,732,913	4,130,822	3,791,394	6,215,804
Jamaica	3,297,139	3,516,332	3,783,481	4,759,563	5,481,308
Trinidad and Tobago	1,463,737	2,555,552	1,061,514	2,821,485	2,099,201
Other	2,051,148	2,077,916	996,335	2,486,091	3,552,999
Gibraltar	–	–	–	957	683
Hong Kong	1,971,350	1,829,869	1,546,166	1,422,207	1,440,897
Iraq (Mesopotamia)	–	6,436	10,806	2,644	66,738
Malta, Cyprus and Gozo	524	795	221	967	875
Newfoundland	1,474,920	1,643,162	1,615,132	1,868,601	2,097,525
Oceania—Australia	1,037,451	2,634,713	3,042,054	6,296,165	5,301,618
Fiji	23,918	509,605	2,567,204	1,230,542	4,317,876
New Zealand	2,181,028	1,191,299	2,725,235	4,577,546	8,262,322
Other	–	4,553	1,141	–	–
Palestine	7,628	10,337	6,861	7,921	15,590
Other British countries	–	–	–	–	–
Total, British Empire	**195,390,701**	**194,988,155**	**208,820,128**	**214,068,538**	**249,087,328**
Foreign Countries.					
Argentina	4,191,774	6,262,738	3,454,108	5,657,074	9,849,754
Austria	168,776	231,280	196,033	482,264	594,875
Belgium	5,344,773	5,067,866	6,953,173	9,663,308	9,898,237
Bolivia	3,029	–	1,031	–	1,968
Brazil	1,439,497	1,818,213	1,848,758	1,969,621	2,088,200
Chile	97,959	393,694	670,145	471,424	522,597
China	2,720,372	2,529,880	2,547,995	5,041,592	2,572,453

19.—Values of Imports into Canada of Merchandise entered for Consumption from the British Empire and from Foreign Countries in the five fiscal years ended Mar. 31, 1924-1928.

Countries.	1924.	1925.	1926.	1927.	1928.
Foreign Countries—concluded.	$	$	$	$	$
Colombia	480,008	719,441	693,058	1,117,046	7,580,376
Costa Rica	73,584	144,857	77,065	44,488	47,358
Cuba	10,781,047	7,798,128	11,063,284	8,076,575	5,587,171
Czechoslovakia	769,647	954,380	1,272,045	1,726,922	2,423,984
Denmark	94,793	86,857	137,466	175,215	126,283
Ecuador	247	75	–	563	618,001
Egypt	34,241	60,621	77,858	113,052	159,213
Estonia	–	–	–	3,310	188
Finland	6,090	16,593	43,586	82,636	93,106
France	15,767,851	18,460,625	19,151,699	23,992,322	26,473,732
French Africa	404,162	184,701	8,501	10,971	142,331
French West Indies	–	242	1,169	2,534	–
St. Pierre and Miquelon	30,169	17,450	36,442	73,054	77,560
Germany	5,382,506	6,787,611	9,986,763	15,030,138	17,055,798
Greece	507,916	433,442	334,909	329,031	254,134
Guatemala	324,843	234,744	256,523	182,860	93,390
Hayti	161,250	12,019	130,162	373,479	198,206
Honduras	12,381	524,543	582,153	927,108	622,299
Italy	1,849,844	1,930,492	2,597,759	3,444,062	4,241,802
Japan	6,298,201	6,985,056	9,564,074	11,170,380	12,505,373
Korea	159	120	270	74	2,101
Jugo-Slavia	–	386	1,407	6,854	12,041
Lettonia (Latvia)	–	2,927	400	–	41,043
Mexico	2,647,184	2,676,815	3,684,460	2,372,972	1,174,087
Morocco	1,655	9,223	7,260	13,215	14,728
Netherlands	5,359,930	5,082,842	6,864,563	7,693,668	8,794,049
Dutch East Indies	4,820,024	2,951,820	1,729,283	857,439	1,131,283
Dutch Guiana	–	–	7,442	–	13,409
Dutch West Indies	829	4,877	–	180,267	495,078
Nicaragua	16,593	86,671	78,665	70,035	2,561
Norway	698,547	741,153	630,781	911,357	1,064,215
Panama	1,706	2,998	4,410	240	3,230
Paraguay	–	26,281	47,735	14,047	130,406
Persia	132,509	157,928	152,980	115,483	124,427
Peru	4,038,668	3,532,608	5,700,109	5,893,106	5,216,402
Poland and Danzig	40,182	35,644	35,566	43,875	135,452
Portugal	260,401	327,788	348,817	471,026	722,279
Azores and Madeira	89,191	131,221	69,946	91,841	130,343
Portuguese Africa	–	–	26,770	–	–
Rumania	1,940	3,662	2,363	35,666	46,947
Russia	344,770	2,807	7,207	20,336	73,119
Salvador	94,178	122,062	54,623	78,639	23,044
Santo Domingo	8,800,060	2,686,000	6,791,339	6,015,541	2,452,841
Siam	46,485	3,668	95,731	16,988	42,379
Spain	1,666,569	1,768,222	2,085,850	2,220,823	2,572,150
Canary Islands	1,133	1,767	916	326	1,964
Sweden	1,056,551	1,242,735	1,134,644	1,643,973	1,862,120
Switzerland	8,420,673	7,801,575	7,462,608	9,491,779	8,595,677
Syria	5,113	4,749	3,940	13,268	15,162
Turkey	331,307	298,788	344,268	406,114	526,321
United States	601,256,447	509,780,009	608,618,542	687,022,521	719,436,237
Alaska	266,995	102,008	191,715	173,572	171,562
Hawaii	153,136	160,788	251,253	255,576	309,753
Philippines	108,760	126,001	74,253	178,764	159,879
Porto Rico	927	1,764	2,372	15,696	1,490
Uruguay	174,878	228,427	69,558	55,280	80,507
Venezuela	170,589	175,494	188,761	190,778	213,538
Other foreign countries	24,054	7,006	58,038	91,799	248,925
Total, Foreign Countries	**697,976,166**	**691,944,382**	**718,508,604**	**816,823,967**	**859,869,138**
Grand Total Imports	**893,366,867**	**796,932,537**	**927,328,732**	**1,030,892,595**	**1,108,956,466**
Continents.					
Europe—United Kingdom	153,586,690	157,083,946	163,731,210	163,939,065	185,895,857
Other Europe	48,185,335	51,415,319	59,693,819	78,090,433	85,853,184
North America	639,995,894	540,912,849	644,605,333	721,710,922	750,041,288
South America	16,820,196	20,098,729	17,188,318	19,961,401	32,390,560
Asia	30,432,610	27,454,036	32,653,015	31,971,533	32,428,804
Oceania	3,504,293	4,626,959	8,661,140	12,538,593	18,351,448
Africa	841,849	1,340,699	795,897	2,680,558	3,995,325

20.—Values of Exports of Canadian Produce from Canada to the British Empire and to Foreign Countries in the five fiscal years ended Mar. 31, 1924-1928.

Countries.	1924.	1925.	1926.	1927.	1928.
British Empire.	$	$	$	$	$
United Kingdom	360,057,782	395,843,433	508,237,560	446,872,851	410,700,005
Irish Free State	–	4,616,375	4,708,689	6,057,004	4,325,251
Aden	33,807	34,969	36,640	38,638	31,056
Africa—British East	320,939	620,062	995,022	649,885	1,238,563
British South	8,019,853	9,276,502	9,078,462	8,388,731	8,725,216
British West	312,618	394,911	587,083	883,868	893,074
Bermuda	1,424,596	1,728,926	1,150,803	1,286,770	1,364,952
British East Indies—British India	3,120,578	4,053,131	7,420,708	9,995,386	11,042,851
Ceylon	445,129	453,383	606,688	708,096	727,369
Straits Settlements	1,280,543	1,645,682	3,568,498	2,460,430	1,492,373
Other	1,613	106	239	1,210	4,428
British Guiana	2,528,960	2,422,524	2,256,556	2,408,677	2,284,620
British Honduras	349,471	427,838	504,411	484,712	604,613
British Sudan	–	7,739	45,445	20,661	118,449
British West Indies—Barbados	1,769,811	1,738,442	1,592,570	1,624,403	1,836,952
Jamaica	3,132,042	3,252,783	3,976,210	4,307,751	4,983,775
Trinidad and Tobago	3,447,013	3,552,516	3,875,332	3,840,984	4,240,751
Other	2,702,846	2,307,916	3,851,248	3,748,716	3,861,847
Gibraltar	37,197	597,081	61,269	405,064	23,958
Hong Kong	3,809,977	1,714,419	1,885,838	1,460,274	2,465,946
Iraq (Mesopotamia)	–	25,834	122,257	163,153	289,938
Malta, Cyprus and Gozo	274,351	322,053	277,861	454,872	349,881
Newfoundland	10,507,963	12,701,428	11,277,182	11,169,991	11,661,248
Oceania—Australia	19,923,997	12,035,086	15,411,746	18,965,881	14,192,438
Fiji	269,545	197,426	271,004	317,367	297,545
New Zealand	12,735,620	15,079,451	16,562,007	13,538,513	11,366,550
Other	63,598	64,405	129,278	78,521	49,319
Palestine	26,520	18,292	77,389	105,352	104,408
Other British countries	–	–	–	–	–
Total, British Empire	**436,596,369**	**475,132,713**	**598,567,995**	**540,437,761**	**499,277,376**
Foreign Countries.					
Argentina	7,305,866	10,322,373	12,639,706	13,101,846	11,085,728
Austria	52,458	106,952	21,536	191,152	288,782
Belgium	17,452,442	16,639,869	22,802,741	21,341,116	20,781,981
Bolivia	62,235	72,354	173,698	66,670	117,654
Brazil	2,624,310	3,417,249	4,832,391	7,291,479	4,897,082
Chile	621,208	776,367	1,409,787	1,517,901	1,347,528
China	12,998,248	7,838,187	24,473,446	13,516,939	13,432,396
Colombia	240,166	269,678	683,700	1,349,315	1,732,573
Costa Rica	134,185	153,627	213,445	198,946	203,050
Cuba	6,776,605	7,142,406	8,525,583	6,827,572	5,386,679
Czechoslovakia	94,964	123,121	132,114	476,632	1,439,483
Denmark	3,749,799	4,278,962	6,215,226	5,666,387	6,390,662
Ecuador	56,039	85,292	150,079	54,444	124,570
Egypt	953,329	1,063,181	1,340,020	1,485,825	1,798,004
Estonia	236,226	198,350	86,317	212,164	174,181
Finland	1,754,279	1,038,009	1,578,554	1,882,874	1,838,447
France	18,879,097	10,290,063	13,952,262	15,220,232	9,946,145
French Africa	77,491	148,669	210,603	520,249	456,912
French West Indies	63,436	145,334	223,770	234,298	371,511
St. Pierre and Miquelon	1,781,385	1,104,386	487,895	582,006	1,476,340
Germany	16,153,650	24,234,685	30,734,037	34,411,021	42,244,217
Greece	6,095,301	5,369,933	3,709,798	6,023,161	4,282,227
Guatemala	76,446	229,153	152,329	218,383	175,917
Hayti	401,659	489,596	608,117	393,799	364,770
Honduras	196,450	224,668	168,379	117,893	110,832
Italy	18,501,578	14,142,975	12,788,653	22,815,083	18,742,516
Japan	26,991,860	22,046,486	34,694,862	29,929,031	32,957,162
Korea	12,008	18,341	10,667	946,807	487,360
Jugo-Slavia	66,616	63,361	105,156	116,325	137,955
Lettonia (Latvia)	160,143	939,784	528,765	68,019	125,322
Mexico	3,510,397	2,856,409	2,990,773	2,760,686	2,539,947
Morocco	15,030	16,092	125,484	425,550	277,783
Netherlands	9,488,881	12,644,245	23,476,607	26,374,378	35,537,951
Dutch East Indies	1,104,074	1,473,951	3,881,957	3,651,511	2,364,334
Dutch Guiana	108,157	87,411	107,834	107,270	116,414
Dutch West Indies	29,521	33,605	79,902	142,808	163,249

20.—Values of Exports of Canadian Produce from Canada to the British Empire and to Foreign Countries in the five fiscal years ended Mar. 31, 1924-1928—concluded.

Countries.	1924.	1925.	1926.	1927.	1928.
Foreign Countries—concluded.	$	$	$	$	$
Nicaragua	121,984	50,698	46,267	53,976	72,733
Norway	5,252,239	2,091,195	6,767,887	5,028,104	6,665,770
Panama	206,648	295,170	483,449	504,030	1,124,817
Paraguay	72	4,111	46,099	58,956	80,756
Persia	1,206	2,030	17,691	38,203	72,896
Peru	568,295	928,796	1,226,355	1,406,958	1,285,525
Poland and Danzig	1,841,980	1,774,056	2,295,215	154,814	455,975
Portugal	1,015,496	9,413	121,773	1,273,457	942,210
Azores and Madeira	302,191	17,185	79,297	180,678	210,004
Portuguese Africa	323,015	554,984	811,086	876,114	1,054,816
Rumania	12,860	32,882	305,169	465,840	795,953
Russia	115,980	11,669,352	3,788,266	2,407,206	2,424,071
Salvador	81,998	235,949	127,093	141,297	97,232
Santo Domingo	298,252	362,849	350,256	461,120	413,034
Siam	115,781	162,330	294,246	317,828	117,227
Spain	794,720	178,096	832,547	543,022	609,653
Canary Islands	66,052	66,775	78,581	185,840	131,058
Sweden	3,716,603	3,906,572	3,542,709	3,415,805	4,612,342
Switzerland	1,289,581	745,174	1,218,616	594,179	498,270
Syria	21,136	46,088	47,586	113,134	158,742
Turkey	169,804	35,252	110,597	39,137	62,640
United States	430,707,544	417,417,144	474,987,367	466,422,789	478,006,114
Alaska	306,294	226,202	270,250	249,214	311,434
Hawaii	183,188	23,931	11,785	38,027	79,369
Philippines	300,832	318,668	172,630	230,647	272,751
Porto Rico	692,663	683,915	866,688	914,957	817,594
Uruguay	460,365	859,206	1,910,269	2,784,391	1,626,003
Venezuela	872,799	1,065,253	1,483,333	2,293,876	1,497,544
Other foreign countries	131,098	86,240	178,496	286,376	515,733
Total, Foreign Countries	**608,754,687**	**593,934,640**	**716,787,796**	**711,719,745**	**728,930,230**
Grand Total, Canadian Exports	**1,045,351,056**	**1,069,067,353**	**1,315,355,791**	**1,252,157,506**	**1,228,207,606**
Continents.					
Europe—United Kingdom	360,057,782	395,843,433	508,237,560	446,872,851	410,700,005
Other Europe	107,563,113	116,119,915	140,332,622	155,929,919	164,093,063
North America	468,514,706	457,071,808	516,335,328	506,191,821	519,075,886
South America	15,655,120	20,605,784	27,404,422	32,948,780	27,415,478
Asia	49,970,755	39,540,148	77,145,683	63,481,649	65,753,613
Oceania	33,488,851	27,721,991	32,560,928	33,199,782	26,267,385
Africa	10,100,729	12,164,274	13,339,248	13,532,704	14,902,176

21.—Value of Merchandise imported into and exported from Canada through the United States during the fiscal years ended Mar. 31, 1927 and 1928.

Countries whence imported and to which exported.	Merchandise imported through United States.		Merchandise exported through United States.	
	1927.	1928.	1927.	1928.
	$	$	$	$
United Kingdom	728,001	773,694	216,313,069	201,784,594
Australia	–	381,099	4,589,369	4,054,737
Bermuda	5,368	5,041	223,440	248,740
British Africa	138,187	58,726	3,046,024	4,581,170
British India	934,877	167,666	6,868,595	9,388,869
British East Indies	1,851,219	1,403,798	2,711,917	2,040,476
British Guiana	–	–	345,086	227,898
British West Indies	418,048	14,764	2,654,595	2,895,397
Hong Kong	3,210	1,995	31,849	85,529
Iraq	2,384	520	163,153	288,318
Malta	–	–	324,520	334,802
New Zealand	421,765	165,706	1,731,055	2,085,525
Total, British Empire[1]	**4,560,541**	**3,014,701**	**239,862,232**	**228,546,967**
Argentina	861,599	1,685,046	10,840,301	8,449,860
Belgium	93,831	16,953	686,099	711,014
Brazil	1,074,158	1,282,565	5,975,657	4,359,538
Central American States[2]	38,873	36,099	550,913	557,441
Chile	11,044	180	1,467,466	1,287,774
China	486,428	781,627	861,472	1,138,546
Colombia	302,786	340,367	1,069,700	947,739
Cuba	1,374,530	940,002	2,811,775	2,206,087
Czechoslovakia	45,263	21,525	314,298	689,000
Denmark	16,401	4,489	3,326,177	3,337,449
Dutch East Indies	356,655	344,032	3,594,028	2,256,528
Egypt	22,937	–	1,342,993	1,732,924
Finland	3,220	–	1,148,458	1,235,915
French West Indies	–	–	102,393	142,441
France	270,312	173,245	2,953,524	1,702,180
French Africa	–	1,739	184,723	187,756
Germany	331,655	434,636	6,451,620	4,814,737
Greece	111,175	60,297	3,080,423	2,086,605
Hayti	–	4,597	372,862	353,140
Italy	342,273	556,219	1,356,114	1,211,747
Japan	56,286	74,026	2,264,227	1,595,841
Mexico	308,370	291,122	2,634,222	2,470,120
Netherlands	579,412	391,218	3,541,918	4,671,718
Norway	7,103	44,298	1,734,347	2,019,404
Panama	–	1,853	475,103	1,091,836
Peru	621	2,036	806,691	879,927
Poland and Danzig	3,902	18,436	96,419	326,934
Porto Rico	9,144	1,145	478,059	413,386
Portugal	32,512	38,238	28,097	37,548
Portuguese Africa	–	–	531,606	591,375
Rumania	22,398	15,960	455,698	778,762
Russia	–	–	1,479,535	1,466,668
Santo Domingo	295,408	934	450,581	369,157
Siam	–	–	314,227	114,788
Spain	504,528	444,907	455,501	439,418
Sweden	57,511	93,467	1,133,066	1,182,834
Switzerland	46,240	262,774	275,643	315,806
Turkey	227,612	267,275	37,705	62,640
Uruguay	172	27,148	871,269	1,265,853
Venezuela	196,762	158,979	2,227,747	1,389,146
Total Foreign Countries[1]	**8,200,679**	**9,102,893**	**70,422,646**	**63,060,434**
Grand Total	**12,761,220**	**12,117,594**	**310,284,878**	**291,607,401**

[1] Includes other countries not specified.
[2] Costa Rica, Guatemala, Honduras, Nicaragua and Salvador.

22.—Import and Export Trade of Canada with Bermuda, Mexico and Newfoundland, years ended Mar. 31, 1927 and 1928.[1]

Articles.		Bermuda.		Mexico.		Newfoundland.	
		1927.	1928.	1927.	1928.	1927.	1928.
Imports for Consumption.							
Vegetables, fresh	$	39,310	24,789	97,558	183,979	9	101
Rice, uncleaned	cwt.	–	–	71,001	69,360	–	–
	$	–	–	271,829	199,053	–	–
Coffee, green	lb.	–	–	875,283	856,584	–	–
	$	–	–	244,804	233,779	–	–
Fishery products	$	–	–	–	3,289	620,285	861,646
Furs, undressed	$	–	–	–	–	66,052	150,600
Fish, seal and whale oil	gal.	–	–	–	–	254,443	195,125
	$	–	–	–	–	166,539	174,495
Iron ore	ton	–	–	–	–	422,777	427,682
	$	–	–	–	–	422,806	427,720
Petroleum, crude	gal.	–	–	25,824,400	5,392,920	–	–
	$	–	–	883,467	221,816	–	–
Fuel oil for ships' stores	gal.	–	–	–	4,981,306	–	–
	$	–	–	–	249,018	–	–
Total Imports [2]	$	**112,185**	**53,642**	**2,372,972**	**1,174,087**	**1,868,601**	**2,097,525**
Exports (Canadian).							
Apples, fresh	brl.	2,204	1,285	454	–	11,797	14,565
	$	10,203	6,351	1,500	–	45,287	59,238
Potatoes	bush.	33,646	50,209	–	–	47,550	116,530
	$	41,671	51,375	–	–	36,014	81,227
Oats	bush.	229,135	240,292	–	–	626,979	549,385
	$	141,517	172,044	–	–	360,650	360,064
Flour of wheat	brl.	15,393	12,969	5,903	2,500	318,532	341,543
	$	118,301	98,904	38,479	16,194	2,478,470	2,612,594
Sugar and its products	$	121,600	73,664	84	–	1,061,784	1,084,309
Rubber manufactures	$	6,207	3,579	169,560	56,240	235,177	288,643
Hay	ton	2,624	2,426	–	–	8,439	7,578
	$	38,064	30,173	–	–	106,131	91,661
Cattle	No.	24	7	–	–	2,790	3,000
	$	3,234	740	–	–	173,103	170,924
Meats	$	214,330	236,820	–	–	561,172	567,002
Butter	cwt.	3,018	2,671	–	–	4,635	4,332
	$	108,347	101,537	–	–	168,080	165,396
Cheese	cwt.	1,764	1,887	–	–	4,698	4,961
	$	37,067	42,320	–	–	88,895	103,349
Milk, condensed evaporated	cwt.	2,181	4,148	1,018	387	9,702	10,163
	$	26,039	51,137	14,100	5,100	106,382	113,796
Eggs	doz.	4,170	60	–	–	195,671	136,725
	$	1,741	28	–	–	78,556	56,222
Cotton manufactures	$	510	2,055	3,281	1,295	95,808	127,521
Wool clothing	$	2,593	6,461	8	48	166,344	164,616
Felt manufactures	$	–	–	18,079	29,219	74,316	57,543
Wood, unmfd. (incl. lumber)	$	56,612	67,706	32,534	1,470	114,046	120,683
Furniture of wood	$	16,777	21,538	860	–	77,433	60,330
Paper and manufactures	$	8,058	9,136	64,926	45,804	175,029	181,734
Rails, iron or steel	ton	–	–	–	–	57	15,497
	$	–	–	–	–	2,775	568,011
Machinery	$	2,376	1,288	23,116	11,310	222,426	54,838
Automobiles	No.	–	–	95	90	85	42
	$	–	–	76,187	82,613	28,903	14,486
Aluminium	$	–	315	121,949	115,410	2,654	2,881
Electric apparatus	$	976	757	76,116	68,582	89,594	59,504
Coal	ton	618	346	8,429	–	296,576	271,293
	$	5,023	2,779	69,960	–	1,584,763	1,417,374
Petroleum and products	$	–	1,449	1,034	–	442,673	570,331
Cement	cwt.	26,886	21,825	19,740	24,020	162,930	179,921
	$	10,691	9,426	8,611	6,634	59,853	59,009
Explosives, all kinds	$	–	–	–	–	118,681	172,961
Paints, varnish, etc.	$	3,829	6,041	5,149	5,854	70,823	62,455
Calcium carbide	cwt.	–	–	61,671	60,226	1,080	640
	$	–	–	210,105	203,964	4,050	2,407
Baking powder	cwt.	15	6	–	–	3,524	3,842
	$	397	122	–	–	91,427	98,304
Soda and compounds	cwt.	–	2	208,468	225,657	402	351
	$	–	8	1,343,778	1,457,038	1,855	1,906
Total Exports (Canadian)[2]	$	**1,286,770**	**1,364,952**	**2,769,686**	**2,539,947**	**11,169,991**	**11,661,248**

[1] Figures for 1928 are subject to revision. [2] Totals include other items not specified.

23.—Import and Export Trade of Canada with Barbados, Cuba and Santo Domingo, years ended Mar. 31, 1927 and 1928.[1]

Articles.		Barbados.		Cuba.		Santo Domingo.	
		1927.	1928.	1927.	1928.	1927.	1928.
Imports for Consumption.							
Molasses	gal.	4,466,891	4,758,424	238,602	49,826	–	–
	$	1,658,826	2,100,982	20,931	4,037	–	–
Sugar not above No. 16, D.S.	cwt.	667,120	1,124,963	2,437,052	1,099,987	2,377,945	871,094
	$	2,082,923	4,095,710	6,182,413	3,241,452	6,015,073	2,452,627
Sugar above No. 16, D.S.	cwt.	2,169	790	180,473	263,017	–	–
	$	7,577	4,043	685,645	1,093,985	–	–
Rum	gal.	–	11	3,786	9,150	–	–
	$	–	125	32,973	93,119	–	–
Tobacco, unmanufactured	lb.	–	–	1,110,238	1,169,789	170	–
	$	–	–	946,864	942,750	93	–
Cigars	lb.	–	–	15,301	16,702	–	–
	$	–	–	115,074	124,568	–	–
Total Imports[2]	$	**3,791,394**	**6,215,804**	**8,076,575**	**5,587,171**	**6,015,541**	**2,452,841**
Exports (Canadian).							
Potatoes	bush.	1,919	7,030	1,915,817	2,113,557	–	–
	$	1,745	6,664	2,855,253	2,390,756	–	–
Oats	bush.	160,790	218,612	7,412	1,562	–	–
	$	83,650	136,933	4,304	937	–	–
Wheat flour	brl.	57,856	62,369	107,176	18,804	12,553	12,774
	$	402,059	416,982	773,428	126,085	96,300	94,788
Sugar and its products	$	66,434	74,179	1,598	233	716	722
Whiskey	gal.	112	38	57,167	7,044	167	247
	$	536	183	286,062	37,750	805	989
Oilcake	cwt.	60,167	78,273	–	–	–	–
	$	139,649	178,435	–	–	–	–
Rubber manufactures	$	73,894	91,558	23,368	13,582	92,601	77,799
Hay	ton	524	35	5,159	5,621	–	–
	$	7,434	577	54,990	58,970	–	–
Fish, dried, smoked, pickled	$	55,128	109,508	867,823	834,592	95,916	74,461
Salmon, canned	cwt.	1,973	1,170	2,487	468	196	776
	$	27,159	15,147	24,304	4,707	1,967	7,613
Meats	$	69,233	66,162	–	–	18	–
Butter	cwt.	667	664	–	553	126	64
	$	28,121	31,167	–	20,533	4,998	2,949
Cheese	cwt.	778	999	339	2,205	28	53
	$	18,826	26,068	5,088	34,234	614	1,190
Milk, condensed	cwt.	1,163	1,868	26,653	45,667	1,010	528
	$	15,158	26,082	306,274	546,523	10,195	5,426
Planks and boards	M ft.	5,620	6,038	5,556	5,677	47	160
	$	160,678	169,709	154,384	145,514	1,621	6,005
Shingles	M	21,875	24,037	–	–	–	–
	$	42,963	63,867	–	–	–	–
Shooks	$	71,237	61,154	–	–	–	–
Staves and headings	$	30,940	27,640	100	1,515	–	–
Newsprint paper	cwt.	387	634	177,225	152,211	3,022	2,216
	$	1,691	2,275	572,146	514,514	9,828	7,223
Automobiles	No.	112	129	99	76	59	28
	$	56,212	70,993	110,860	84,313	47,586	29,476
Copper wire and cable	$	–	–	183,359	44,211	19	44
Electric apparatus	$	3,437	6,138	42,879	40,122	–	198
Ammonium sulphate	cwt.	32,409	19,533	7,690	12,030	–	–
	$	85,901	41,099	18,670	21,977	–	–
Calcium carbide	cwt.	100	30	83,931	73,064	3,408	3,896
	$	375	104	273,633	249,149	12,659	13,989
Stationery, n.o.p.	$	4,071	4,033	36,339	28,885	6,202	6,668
Total Exports (Canadian)[2]	$	**1,624,403**	**1,836,952**	**6,827,572**	**5,386,679**	**461,120**	**413,034**

[1] Figures for 1928 are subject to revision. [2] Totals include other items not specified.

24.—Import and Export Trade of Canada with Jamaica, Trinidad and Tobago and other British West Indies, years ended Mar. 31, 1927 and 1928.[1]

Articles.		Jamaica.		Trinidad and Tobago.		Other British West Indies.	
		1927.	1928.	1927.	1928.	1927.	1928.
Imports for Consumption.							
Bananas	bunch	38,597	43,388	–	–	1	4
	$	40,091	39,450	–	–	6	2
Grape fruit	lb.	746,599	436,441	630	8,480	13,799	8,540
	$	30,907	15,092	18	385	570	457
Cocoanuts	No.	3,452,180	4,722,300	1,097,705	805,075	473,550	274,760
	$	76,367	103,197	21,570	20,053	8,346	6,310
Molasses	gal.	–	–	34,920	10,402	487,185	307,441
	$	–	–	9,211	3,773	103,614	101,715
Sugar not above No. 16, D.S.	cwt.	817,906	881,155	821,179	405,417	557,042	732,863
	$	2,676,366	3,308,515	2,564,746	1,561,314	1,903,867	2,936,023
Cocoa beans, not roasted	cwt.	6,760	15,831	10,549	31,451	4,800	15,211
	$	71,331	236,346	141,835	478,279	67,495	219,462
Coffee, green	lb.	7,654,155	7,181,853	228,900	43,040	37,587	2,000
	$	1,589,564	1,477,114	44,953	8,577	7,679	389
Spices	$	56,480	65,666	–	416	151,226	62,418
Rum	gal.	37,942	33,793	–	81	146	175
	$	143,087	169,709	–	304	654	724
Total Imports	$	**4,759,563**	**5,481,308**	**2,821,485**	**2,099,201**	**2,486,091**	**3,552,999**
Exports (Canadian).							
Potatoes	bush.	18,577	22,541	12,685	42,154	2,313	6,239
	$	28,482	22,909	13,587	40,355	3,711	6,723
Oats	bush.	55,599	64,956	120,780	192,474	35,177	26,514
	$	33,170	44,597	67,778	127,933	23,960	18,692
Flour of wheat	brl.	251,430	286,592	279,545	281,129	151,199	177,562
	$	1,712,665	1,856,707	1,925,943	1,827,335	1,058,534	1,162,183
Biscuits and bread	cwt.	2,299	1,471	1,039	1,195	1,364	1,146
	$	22,634	14,598	14,597	18,305	20,490	17,690
Sugar, all kinds, n.o.p.	cwt.	15,669	22,030	24,556	40,352	17,405	19,107
	$	86,524	133,685	137,489	230,458	107,582	115,704
Whiskey	gal.	1,430	1,833	371	1,203	326,204	318,756
	$	8,455	7,555	1,735	5,053	1,617,519	1,518,647
Oilcake	cwt.	192	25	46,325	38,508	11,881	14,280
	$	390	55	103,702	90,614	27,944	33,682
Rubber manufactures	$	338,592	427,843	208,027	259,149	105,724	114,590
Fish, dried, salted, etc.	$	766,303	708,920	365,970	393,465	123,197	130,193
Fish, canned	$	85,270	113,984	58,043	90,530	18,975	21,388
Meats	$	7,907	60,574	97,529	89,976	37,139	25,393
Butter	cwt.	3,105	3,258	1,467	2,269	1,322	1,528
	$	137,876	141,152	60,923	94,479	56,644	65,070
Cheese	cwt.	1,232	3,388	1,795	2,671	1,007	1,255
	$	31,175	82,482	43,082	64,271	24,255	31,642
Milk, condensed	cwt	25,098	17,230	6,170	6,830	2,865	3,122
	$	340,005	219,111	79,775	90,934	29,025	32,328
Lard and lard compound	cwt.	2,328	2,296	6,660	9,559	1,512	965
	$	29,485	29,746	84,879	110,495	20,839	14,750
Planks and boards	M ft.	2,123	3,263	2,877	3,497	4,098	4,145
	$	45,324	68,190	80,327	95,596	131,345	134,214
Paper and manufactures	$	69,523	59,631	8,295	19,076	6,709	5,719
Rolling mill products	$	1,211	152,510	680	12,908	5,125	35,205
Nails, all kinds	cwt	5,590	10,043	6,422	7,027	4,090	5,673
	$	22,027	38,082	17,394	19,505	17,898	23,362
Automobiles	No.	361	787	372	334	107	118
	$	176,572	391,571	163,336	150,239	48,465	55,170
Electric apparatus	$	1,430	789	1,107	30,032	2,083	1,214
Cement	cwt.	50,760	57,716	58,468	35,348	32,227	49,452
	$	15,373	14,562	18,369	12,545	10,594	19,540
Medicinal preparations	$	22,513	24,038	18,215	23,730	10,090	11,169
Soap	lb.	36,384	47,417	322,920	374,807	59,737	66,768
	$	10,176	13,374	26,544	30,228	7,625	7,373
Total Exports (Canadian)[2]	$	**4,307,751**	**4,983,775**	**3,840,984**	**4,240,751**	**3,748,716**	**3,861,847**

[1] Figures for 1928 are subject to revision. [2] Totals include other items not specified.

25.—Import and Export Trade of Canada with Argentina, Brazil and British Guiana, years ended Mar. 31, 1927 and 1928.[1]

Articles.		Argentina.		Brazil.		British Guiana.	
		1927.	1928.	1927.	1928.	1927.	1928.
Imports for Consumption.							
Corn	bush.	2,720,417	7,506,290	–	–	–	–
	$	2,268,894	6,286,249	–	–	–	–
Sugar, not above No. 16, D.S.	cwt.	–	–	–	–	1,299,475	1,654,826
	$	–	–	–	–	4,506,569	5,972,935
Coffee, green	lb.	–	–	9,329,127	10,732,120	–	–
	$	–	–	1,964,875	1,871,585	–	–
Flaxseed	bush.	789,215	312,789	–	–	–	–
	$	1,477,836	573,210	–	–	–	–
Hides and skins, raw	$	1,101,654	2,106,931	–	201,007	–	–
Meats	$	166,612	386,782	–	–	–	65
Casein	lb.	273,363	163,902	–	–	–	–
	$	33,042	20,034	–	–	–	–
Lard compound	lb.	323,648	716,064	–	–	–	–
	$	31,208	56,698	–	–	–	–
Wool, raw	lb.	580,544	176,733	–	–	–	–
	$	124,287	72,545	–	–	–	–
Oak, quebracho and similar extracts	lb.	11,045,407	6,750,230	11,200	–	–	–
	$	443,323	314,793	500	–	–	–
Total Imports [2]	$	**5,657,074**	**9,849,754**	**1,969,621**	**2,088,200**	**4,592,106**	**6,072,172**
Exports (Canadian).							
Potatoes	bush.	–	–	–	–	15,272	62,924
	$	–	–	–	–	17,629	59,645
Oats	bush.	–	–	–	–	95,357	130,338
	$	–	–	–	–	56,083	93,519
Wheat	bush.	–	–	413,258	–	–	–
	$	–	–	671,908	–	–	–
Flour of wheat	brl.	–	–	309,928	49,205	163,314	156,160
	$	–	–	2,204,030	275,200	1,127,512	1,039,134
Malt	bush.	80,965	49,577	23,097	6,111	–	–
	$	106,693	16,805	29,146	7,400	–	–
Rubber manufactures	$	2,367,581	2,436,597	1,256,548	1,107,747	115,269	113,408
Fish, dried, salted, etc.	$	–	–	382,239	523,080	119,383	98,295
Fish, canned	$	3,144	27,641	190	–	44,319	42,254
Butter	cwt.	–	–	–	–	1,414	1,681
	$	–	–	–	–	62,946	70,743
Cheese	cwt.	273	253	–	–	1,658	1,499
	$	7,335	7,628	–	–	39,091	37,529
Milk, condensed	cwt.	–	–	–	–	6,049	4,495
	$	–	–	–	–	86,370	63,575
Binder twine	cwt.	20,602	12,500	–	–	–	–
	$	267,225	137,500	–	–	–	–
Wood, unmanufactured (incl. lumber)	$	226,854	97,558	1,077	121	85,769	82,438
Paper and mfrs. of	$	1,584,969	1,309,240	817	1,435	7,663	13,803
Iron pipe and tubing	$	140,175	57,535	26,635	55,118	268	639
Farm implements and machinery	$	3,893,399	3,534,894	12,050	22,363	91	263
Sewing machines	$	1,129,791	1,539,912	795,538	1,735,008	–	–
Automobiles	No.	3,601	1,772	1,208	686	181	99
	$	2,113,070	1,296,864	985,027	573,071	78,976	50,303
Automobile parts	$	862,726	125,215	270,321	4,360	1,806	4,254
Other vehicles of iron	$	6,697	2,855	64,215	148,564	975	850
Aluminium	$	1,530	8,227	60,447	3,822	55	9
Copper wire and cable	$	–	–	78,579	7,205	96	178
Lead and mfrs. of	$	2,491	20,835	66,724	12,106	–	–
Zinc spelter	cwt.	9,522	18,486	–	–	–	–
	$	75,945	99,483	–	–	–	–
Electric apparatus	$	12,782	8,873	83,080	100,179	1,825	1,573
Cement	cwt.	22,120	26,320	84,600	82,720	30,080	30,080
	$	5,813	7,286	25,009	24,265	15,182	15,161
Containers, n.o.p.	$	3,530	7,920	13,517	13,560	79,788	84,713
Musical instruments	$	88,942	131,638	63,440	46,860	2,335	1,811
Total Exports (Canadian)[2]	$	**13,101,846**	**11,085,728**	**7,291,479**	**4,897,082**	**2,408,677**	**2,284,620**

[1] Figures for 1928 are subject to revision. [2] Totals include other items not specified.

26.—Import and Export Trade of Canada with Chile, Peru and Uruguay, years ended Mar. 31, 1927 and 1928.[1]

Articles.		Chile.		Peru.		Uruguay.	
		1927.	1928.	1927.	1928.	1927.	1928.
Imports for Consumption.							
Sugar, not above No.16, D.S.	cwt.	–	–	79,297	125,919	–	–
	$	–	–	173,104	310,455	–	–
Hides and skins, raw	$	–	–	–	–	–	72,399
Meats, canned	lb.	–	–	–	–	479,164	60,463
	$	–	–	–	–	54,600	8,108
Petroleum, crude for refining	gal.	–	–	60,468,509	73,560,589	–	–
	$	–	–	5,183,169	4,297,017	–	–
Petroleum, n.o.p., ·8235 sp. gr. or heavier.	gal.	–	–	11,160,890	14,085,795	–	–
	$	–	–	536,404	605,577	–	–
Soda nitrate	cwt.	203,914	245,837	–	–	–	–
	$	466,729	522,458	–	–	–	–
Total Imports[2]	$	**471,424**	**522,597**	**5,893,106**	**5,216,402**	**55,280**	**80,507**
Exports (Canadian).							
Wheat	bush.	–	12	383,591	260,851	–	–
	$	–	28	574,197	377,902	–	–
Sugar, all kinds, n.o.p.	cwt.	–	–	–	–	349,960	148,736
	$	–	–	–	–	1,838,758	735,291
Whiskey	gal.	509	612	518	469	1,241	1,250
	$	2,412	2,329	2,586	1,850	4,990	4,451
Rubber boots and shoes	pair	84,264	211,064	577	615	180,700	131,085
	$	55,437	130,723	753	577	126,163	86,762
Rubber tires	$	178,094	177,872	122,527	72,388	229,137	216,082
Salmon, canned	cwt.	17,419	11,536	1,917	3,136	48	–
	$	160,402	99,812	18,775	31,757	475	–
Milk, condensed	cwt.	–	24	8,197	17,305	–	–
	$	–	300	107,484	232,098	–	–
Lard	cwt.	–	–	7,272	6,229	–	–
	$	–	–	121,441	94,291	–	–
Binder twine	cwt.	–	–	–	–	2,000	1,500
	$	–	–	–	–	24,000	14,250
Wood, unmfd. (incl. lumber)	$	1,314	1,860	10,778	98	–	18,762
Wood, manufactured	$	656	2,280	2,614	3,291	–	18,832
Paper board	$	11,626	19,399	11,403	2,585	3,345	–
Book paper	cwt.	461	297	277	348	–	–
	$	5,702	3,391	3,306	4,132	–	–
Newsprint paper	cwt.	–	–	–	–	6,906	2,295
	$	–	–	–	–	22,773	7,096
Wall paper	roll	142,003	359,322	115,348	110,392	5,680	4,102
	$	12,578	30,476	10,623	12,900	575	463
Structural steel	ton	7,427	228	285	–	–	–
	$	514,873	16,215	22,649	–	–	–
Pipe and tubing, iron	$	37,856	38,266	4,333	8,621	3,048	2,424
Farm implements and machinery	$	105,525	151,741	1,468	2,105	137,352	85,872
Sewing machines	$	–	–	–	–	20,382	132,848
Other machinery	$	3,952	1,142	14,506	1,832	671	–
Automobiles	No.	392	1,141	220	724	532	389
	$	223,310	526,110	118,615	297,010	323,246	246,080
Automobile parts	$	2,689	1,389	238	211	2,101	1,196
Chains	$	3,407	1,591	408	–	2,530	6,123
Aluminium and mfrs. of	$	10,421	2,992	1,015	318	–	271
Lead and mfrs. of	$	17,298	–	8,221	6,106	–	–
Cement	cwt.	–	–	78,985	75,204	–	–
	$	–	–	30,799	20,739	–	–
Calcium carbide	cwt.	15,546	18,007	15,634	2,526	901	330
	$	58,969	52,421	59,902	8,629	3,359	1,125
Containers, n.o.p.	$	–	–	9,648	13,352	50	538
Musical instruments	$	85,308	58,919	13,752	14,662	24,776	36,240
Total Exports (Canadian)[2]	$	**1,517,901**	**1,347,528**	**1,406,958**	**1,285,525**	**2,784,391**	**1,628,209**

[1] Figures for 1928 are subject to revision. [2] Totals include other items not specified.

27.—Import and Export Trade of Canada with Belgium, France and Germany, years ended Mar. 31, 1927 and 1928.[1]

Articles.		Belgium.		France.		Germany.	
		1927.	1928.	1927.	1928.	1927.	1928.
Imports for Consumption.							
Walnuts, shelled or not.	lb.	1,925	–	1,707,672	2,699,551	–	–
	$	482	–	483,591	754,960	–	–
Vegetables, canned.....	lb.	2,158,105	2,490,374	676,286	1,064,931	–	154
	$	149,055	172,669	112,744	150,597	–	41
Beans.....	bush.	287,020	202,941	29,934	6,750	7,359	3,366
	$	516,341	415,572	55,709	14,848	12,309	7,439
Olive oil, edible.....	$	–	–	126,929	166,228	–	–
Sugar above No. 16D.S.	cwt.	45,476	43,979	–	–	50	–
	$	156,286	172,381	–	–	192	–
Cocoa butter.....	lb.	–	–	55	–	10,634	423,182
	$	–	–	17	–	2,898	149,116
Brandy.....	gal.	–	–	213,446	287,719	9	27
	$	–	–	1,237,314	2,120,599	41	50
Cordials, liqueurs, etc..	gal.	174	220	16,637	40,062	3	–
	$	736	1,640	79,233	254,452	16	–
Wines.....	$	72	7,192	918,008	2,084,482	4,012	29,917
Essential oils (except peppermint).....	lb.	–	–	44,792	37,989	23,503	43,212
	$	–	–	109,109	131,653	31,662	22,462
Plants, trees, etc.....	$	63,767	61,338	51,083	65,474	40,706	60,792
Rubber and mfrs. of...	$	105	7,298	49,689	26,254	90,365	126,279
Seeds.....	$	3,336	9,585	177,030	39,791	48,767	35,758
Furs, undressed.....	$	22,750	31,554	129,587	190,351	21,738	439,467
Furs, dressed.....	$	10,412	2,761	1,042,870	1,024,196	56,618	82,949
Hatters' furs, not on skin	$	401,181	552,367	–	932	147,909	91,468
Hides and skins, raw...	$	–	–	14,313	110,460	148,666	63,460
Gloves of leather.....	$	109,112	128,831	444,922	483,985	36,729	56,651
Cheese.....	lb.	–	–	256,194	232,122	–	2
	$	–	–	78,194	71,157	–	1
Cotton, crochet and knitting.....	lb.	579	80	113,001	76,860	–	–
	$	494	236	287,713	175,410	–	–
Cotton faorics, dyed...	yd.	267,281	276,293	619,740	632,678	111,200	179,403
	$	123,381	139,077	346,403	335,820	56,702	93,940
Velveteens (cotton)....	yd.	6,177	24,008	152,545	233,168	21,116	17,294
	$	5,659	22,714	140,564	240,944	18,100	21,051
Clothing of cotton.....	$	63,956	76,382	153,469	118,556	35,847	58,234
Lace, net and mfrs. of (cotton).....	$	7,130	15,536	291,361	299,629	81,444	89,416
Flax, hemp, jute, mfrs..	$	183,414	106,028	81,530	75,011	53,743	64,259
Ribbons of all kinds....	$	1,379	4,969	490,477	336,916	92,778	63,267
Velvets.....	yd.	39,988	48,688	492,141	533,558	28,850	41,065
	$	39,138	51,945	528,071	550,731	71,901	88,012
Silk cloth, unfinished, to be dyed.....	$	–	–	266,252	452,970	299	–
Other silk piece goods..	$	21,676	30,694	3,023,839	2,400,233	184,734	304,564
Silk clothing.....	$	62,295	74,629	1,471,971	1,223,788	60,301	77,147
Worsted tops.....	lb.	59,368	72,432	277,675	204,210	14,466	7,552
	$	47,141	63,020	257,879	209,970	13,064	6,410
Woollen yarns.....	lb.	29,639	21,856	151,843	140,241	776	503
	$	42,463	34,700	207,642	180,068	879	641
Tweeds.....	yd.	734	143	111,501	177,968	34,115	71,865
	$	1,232	560	180,963	302,923	24,843	75,073
Dress goods, etc., to sq. be dyed (wool).....	yd.	10,156	65,378	2,041,108	1,690,218	–	3,705
	$	4,777	25,185	927,849	670,170	–	2,531
Worsteds, serges, coatings.....	yd.	19,553	17,683	1,339,460	1,530,784	228,218	385,637
	$	19,348	16,606	1,651,155	1,745,556	283,399	451,846
Artificial silk yarns....	lb.	128,136	174,274	26,142	55,044	198,024	323,963
	$	195,367	214,324	37,608	54,969	212,467	291,126
Artificial silk tops, fabrics and mfrs.....	$	23,403	47,189	365,787	525,964	206,570	247,653
Sisal grass.....	cwt.	61,791	26,827	–	–	–	555
	$	630,324	248,453	–	–	–	5,581
Plush fabrics, n.o.p.....	yd.	20,881	35,027	50,646	63,896	49,253	226,662
	$	18,027	30,732	65,785	82,482	89,315	295,072
Gloves of textile fabrics	$	6,323	4,173	160,469	135,746	558,276	719,225
Vegetable parchment paper.....	lb.	142,170	380,751	372,566	347,779	2,308	31,994
	$	15,401	33,072	45,982	36,852	237	4,203
Cigarette paper.....	$	–	–	266,952	268,123	–	115
Bibles, prayer books, etc.	$	73,533	61,075	46,872	59,390	8,181	12,224

[1] Figures for 1928 are subject to revision.

27.—Import and Export Trade of Canada with Belgium, France and Germany, years ended Mar. 31, 1927 and 1928[1]—continued.

Articles.		Belgium.		France..		Germany.	
		1927.	1928.	1927.	1928.	1927.	1928.
Imports for Consumption—concluded.							
Books, printed matter, n.o.p.	$	51,071	35,870	204,118	234,344	110,599	125,116
Iron pigs, ingots, etc.	$	110,628	131,315	108,517	100,376	9,760	15,792
Iron, rolled, in bars, n.o.p.	cwt.	468,197	358,851	5,972	3,840	10,739	25,830
	$	643,997	433,911	8,956	4,770	16,855	51,552
Wire rods	cwt.	321,729	598,656	76,780	57,183	336,838	13,254
	$	425,446	735,293	107,065	71,414	425,785	17,675
Rolling mill prod., other	$	605,700	719,628	174,016	124,349	169,048	83,448
Pen knives, jack-knives	$	1,393	4,635	4,337	2,923	226,873	196,941
Scissors and shears	$	767	1,336	5,746	2,173	126,029	107,343
Machinery	$	34,439	56,642	58,833	70,392	576,872	587,734
Tools, hand implements	$	474	5,844	18,156	8,808	241,067	258,670
Aluminium and mfrs. of	$	1,325	9,255	18,342	50,668	72,438	190,947
Brass and mfrs. of	$	4,872	11,121	94,173	120,107	93,219	113,264
Nickel and mfrs. of	$	65	2,624	26,858	25,588	55,122	154,378
Zinc sheets and plates	lb.	1,772,633	2,078,764	–	–	6,750	–
	$	171,341	153,621	–	–	612	–
Clocks and watches	$	213	499	53,679	38,665	394,125	516,019
Tableware of china, etc.	$	848	11,936	176,625	288,947	436,153	515,283
Glass carboys, bottles	$	204	831	21,186	25,475	117,719	119,369
Glass tableware	$	93,357	98,063	12,781	20,742	40,375	42,154
Common window glass	sq.ft	36,800,146	40,938,169	9,997	31,673	97,653	131,017
	$	991,949	1,034,559	2,244	2,741	10,294	15,965
Plate glass not over 7 sq. ft.	sq. ft.	1,426,821	1,130,546	61,499	41,066	457,781	83,798
	$	537,854	292,951	22,833	12,537	183,098	22,927
Plate glass, 7 to 25 sq. ft.	sq. ft.	308,765	226,136	19,878	1,967	54,731	10,976
	$	146,597	72,763	9,288	1,058	28,536	4,771
Plate glass, n.o.p., not bevelled or bent	sq. ft.	458,366	293,290	28,243	818	55,482	2,490
	$	238,914	108,275	13,737	421	27,898	1,362
Diamonds, unset	$	1,016,761	1,025,091	8,602	21,902	2,100	26,678
Celluloid, sheets, blocks	$	–	14,733	27,864	28,559	170,470	183,109
Drugs and medicinal preparations	$	8,893	8,643	327,196	401,843	118,772	134,423
Dyes, aniline, soluble	lb.	3,145	2,807	162,371	35,820	814,148	799,378
	$	2,337	1,781	38,618	14,758	588,937	508,278
Potash, muriate of, crude	cwt.	5,710	20,878	2,300	–	220,514	210,820
	$	12,540	37,487	4,064	–	311,590	373,044
Lithopone	lb.	85,120	79,354	–	–	3,098,605	2,696,038
	$	3,794	3,140	–	–	115,129	102,670
Zinc white	lb.	653,761	1,000,711	16,068	19,006	149,246	378,649
	$	55,374	65,114	1,729	1,835	11,286	20,564
Perfumery	$	124	900	301,307	388,882	21,477	28,556
Soap	$	12	337	136,848	126,335	5,036	5,231
Ammonia, nitrate of	lb.	–	–	–	–	2,536,339	1,414,246
	$	–	–	–	–	114,596	54,152
Copper sulphate	lb.	537,317	–	–	–	805,705	2,530,870
	$	24,960	–	–	–	36,215	120,444
Cream of tartar	lb.	3,058	–	623,344	429,323	64,452	–
	$	434	–	95,125	76,781	10,027	–
Ethylene glycol	lb.	–	–	–	–	–	1,364,888
	$	–	–	–	–	–	284,631
Glycerine for explosives	lb.	–	–	–	–	793,955	1,005,632
	$	–	–	–	–	165,869	200,539
Dolls	$	145	343	5,799	6,726	165,391	160,713
Toys	$	2,343	4,307	36,890	37,141	647,009	698,842
Combs	$	385	524	21,773	13,371	92,474	122,175
Jewellery	$	1,036	320	80,536	98,521	117,726	139,788
Pocketbooks, etc.	$	305	2,266	116,470	153,877	60,215	108,396
Tobacco pipes, cigar holders, etc.	$	–	402	319,471	322,356	32,514	38,960
Mineral waters	$	255	349	111,527	117,708	5,606	8,616
Musical instruments	$	1,529	2,728	48,484	42,037	244,694	268,501
Scientific apparatus, etc.	$	978	573	118,893	135,873	206,109	240,212
Feathers, etc., artificial, for hats	$	789	368	83,116	128,286	104,287	251,174
Boxes, fancy, ornamental cases, etc.	$	617	1,276	49,172	50,631	131,976	156,922
Pencils, lead	$	–	409	12,309	12,325	161,840	158,038
Precious stones, n.o.p.	$	–	7,129	43,792	102,989	29,740	32,486
Total Imports[2]	$	**9,663,308**	**9,943,570**	**23,992,322**	**26,473,732**	**15,030,138**	**17,055,798**

[1]Figures for 1928 are subject to revision. [2]Totals include other items not specified.

27.—Import and Export Trade of Canada with Belgium, France and Germany, years ended Mar. 31, 1927 and 1928[1]—concluded.

Articles.		Belgium.		France.		Germany.	
		1927.	1928.	1927.	1928.	1927.	1928.
Exports (Canadian).							
Apples, dried	lb.	–	–	10,000	–	1,006,550	1,120,475
	$	–	–	1,000	–	92,947	131,997
Barley	bush.	957,416	951,184	36,560	–	8,227,376	5,073,058
	$	775,028	781,959	27,421	–	6,276,976	4,317,606
Oats	bush.	1,613,311	758,123	18,823	335,722	1,874,081	566,669
	$	913,718	448,069	11,294	182,139	1,096,020	347,985
Rye	bush.	30,840	104,721	–	4,085	452,960	3,154,003
	$	33,924	104,721	–	4,085	505,530	3,374,814
Wheat	bush.	9,473,437	10,293,853	4,155,867	2,438,709	6,524,304	12,698,918
	$	14,717,519	14,480,111	6,074,916	3,271,220	10,035,976	17,906,413
Wheat flour	brl.	684	1,496	550	1	1,544,003	1,050,941
	$	4,888	10,202	3,984	9	10,371,669	6,635,552
Sugar of all kinds, n.o.p.	cwt.	10,752	1,120	262,682	–	–	–
	$	37,417	6,776	1,156,915	–	–	–
Rubber tires	$	298,143	300,841	382,216	180,649	412,199	178,219
Other rubber mfrs.	$	21,992	31,423	38,933	53,418	98,907	109,489
Seeds	$	175	1,350	11,153	74,933	93,423	147,255
Fish, dried, salted, etc.	$	2,393	420	221	–	37,786	136,945
Lobsters, canned	cwt.	851	612	752	1,352	295	399
	$	61,262	47,867	65,254	122,249	23,001	31,925
Salmon, canned	cwt.	20,031	18,906	93,102	100,538	774	1,134
	$	231,672	223,171	1,126,482	1,176,037	9,028	13,175
Other fishery products	$	22,428	12,990	19,403	19,153	225,436	851,444
Furs and mfrs. of	$	1,425	3,454	183,528	303,022	97,361	375,321
Cheese	cwt.	3,286	1,304	347	619	9,509	5,770
	$	79,272	26,870	7,731	14,037	244,415	151,805
Lard	cwt.	1,280	–	551	–	9,085	5,630
	$	18,600	–	8,000	–	134,393	79,055
Sausage casings	$	560	–	–	–	246,382	265,835
Wood, unmfd. (incl. lumber)	$	49,898	32,219	70,937	61,785	49,003	178,261
Wood pulp	cwt.	107,677	137,917	462,881	299,954	2,531	30,175
	$	547,783	664,657	1,422,101	1,442,969	13,336	138,436
Harvesters and binders	No.	469	291	7,084	3,936	1,469	3,137
	$	77,103	48,288	1,153,634	623,364	243,583	524,937
Mowing machines	No.	1,039	596	16,563	8,938	66	158
	$	55,232	33,960	937,034	504,731	3,876	8,719
Electric vacuum cleaners	No.	–	–	–	–	2,100	3,600
	$	–	–	–	–	82,530	132,564
Adding and calculating machines	No.	170	44	–	–	260	487
	$	12,750	4,182	–	–	82,945	85,637
Automobiles, passenger	No.	114	149	36	19	266	134
	$	95,406	120,169	29,962	15,835	344,919	157,248
Automobile parts	$	57,138	33,371	6	–	30,313	105,495
Brass and mfrs. of	$	4,500	200	9,433	11,219	143,491	105,764
Lead in ore	cwt.	50,187	85,693	–	–	–	62
	$	304,530	571,795	–	–	–	432
Lead in pigs, etc.	cwt.	49,378	54,495	64,397	67,174	75,039	74,014
	$	291,798	245,470	381,087	272,657	449,661	325,108
Nickel	cwt.	–	–	–	538	1,823	6,528
	$	–	–	–	19,791	65,086	240,084
Zinc ore	ton	33,081	21,142	–	4,082	–	–
	$	1,167,397	735,183	–	127,112	–	–
Zinc, spelter	cwt.	52,435	120,283	33,600	36,975	162,297	328,921
	$	361,165	673,982	237,361	203,466	1,113,977	1,837,350
Ores, n.o.p. (incl. cobalt ore)	ton	–	–	89	42	293	1,031
	$	–	–	134,300	77,200	117,686	228,254
Cobalt, metallic	lb.	–	–	–	–	–	66,058
	$	–	–	–	–	–	141,698
Asbestos	$	626,746	511,470	432,592	479,131	931,565	1,374,938
Coal	ton	13,340	9,146	24,485	2,380	8,260	8,554
	$	95,575	63,556	160,609	15,073	64,205	53,667
Coal tar and pitch	gal.	253,003	–	3,032,550	733,088	–	–
	$	34,774	–	237,973	67,938	–	–
Total Exports (Canadian)[2]	$	**21,341,116**	**20,781,981**	**15,220,232**	**9,946,145**	**34,411,021**	**42,244,217**

[1]Figures for 1928 are subject to revision. [2]Totals include other items not specified.

28.—Import and Export Trade of Canada with Italy, Netherlands and Switzerland, years ended Mar. 31, 1927 and 1928.[1]

Articles.		Italy.		Netherlands.		Switzerland.	
		1927.	1928.	1927.	1928.	1927.	1928.
Imports for Consumption.							
Lemons	$	202,584	376,208	-	-	-	-
Other fruits, fresh	$	144,456	87,578	2,450	55	-	-
Citron, etc., rinds in brine	$	34,011	31,520	-	-	-	-
Fruits, canned	$	102	2,365	67,021	52,941	-	-
Nuts	$	233,078	184,770	2,297	-	164	-
Vegetables, canned	lb.	922,734	1,304,317	360,531	354,224	-	-
	$	73,122	104,949	41,483	33,390	-	-
Rice, uncleaned	cwt.	-	8,970	18,182	13,395	-	-
	$	-	30,787	59,432	44,369	-	-
Rice, cleaned	cwt.	2,653	2,103	25,037	31,405	-	-
	$	12,178	8,746	123,284	140,344	-	-
Olive oil, edible	gal.	205,358	174,301	-	-	133	50
	$	313,745	314,384	-	-	363	93
Confectionery, chocolate	lb.	445	1,287	113,786	132,888	64,453	76,768
	$	134	637	28,543	39,136	22,222	25,916
Cocoa butter	lb.	-	-	4,166,744	3,744,722	-	-
	$	-	-	1,097,954	1,332,686	-	-
Gin	gal.	-	-	46,154	96,361	-	-
	$	-	-	375,362	815,390	-	-
Vermouth	gal.	23,143	42,437	-	-	-	-
	$	31,101	76,176	-	-	-	-
Wines	$	29,578	39,511	456	36	363	1,461
Essential oils (except peppermint)	lb.	19,825	31,047	7,178	9,548	5,924	6,514
	$	45,290	79,998	18,898	30,413	15,648	10,966
Plants, shrubs, trees, vines	$	25	201	729,791	787,698	-	1,721
Seeds	$	45	2	75,574	86,112	1,269	362
Tobacco, unmanufactured	lb.	-	203,853	121,752	139,135	-	-
	$	-	169,214	170,977	211,522	-	-
Starch	lb.	-	-	1,977,991	3,389,846	-	-
	$	-	-	65,136	123,777	-	-
Fish, dried, salted, smoked, pickled	lb.	8,624	2,586	751,355	745,545	-	-
	$	1,267	559	53,627	51,538	-	-
Hides and skins, raw	$	3,203	37,761	-	14,606	40,102	100,659
Cheese	lb.	308,568	340,067	30,786	112,926	171,025	233,513
	$	100,903	128,735	6,839	21,642	72,138	95,615
Cotton fabrics, dyed	yd.	206,265	236,531	80,294	236,423	187,172	325,941
	$	95,578	124,451	28,810	67,695	95,889	101,205
Cotton handkerchiefs	$	2,154	855	-	-	321,232	351,130
Embroideries, cotton	$	4,866	4,488	-	-	99,575	80,790
Cotton lace, net and mfrs. of	$	24,881	21,817	13,064	14,960	64,635	77,860
Jute or hemp yarn	lb.	200,403	184,300	197	1,872	2,237	-
	$	49,492	40,614	28	1,133	369	-
Damask of linen	$	24,057	58,557	626	-	31	-
Jute cloth or canvas	yd.	267,000	460,725	801,852	1,168,870	-	-
	$	23,921	41,409	21,475	26,891	-	-
Linen doilies, sheets, pillow cases	$	38,489	52,598	44	142	135	403
Ribbons	$	267	1,456	-	655	460,780	292,448
Silk cloth, unfinished, to be dyed	$	3,820	8,841	-	-	411,771	368,783
Silk fabrics, for neckties	$	44,816	167,973	-	-	216,308	426,983
Silk fabrics, n.o.p.	$	184,323	190,765	75	4,438	4,286,717	3,125,182
Tweeds	yd.	10,978	20,794	18,325	11,459	2,304	1,930
	$	9,461	14,117	26,050	15,846	4,175	3,067
Worsteds, serges, coatings	yd.	126,526	56,326	38,553	32,607	35,069	42,620
	$	102,848	46,662	60,331	70,147	49,596	54,590
Artificial silk yarns (rayon)	lb.	40,507	87,568	784,842	710,392	71,504	18,001
	$	39,750	69,916	810,658	652,678	70,887	16,047
Artificial silk fabrics	$	60,353	59,233	3,886	7,805	573,230	768,464
Binder twine	cwt.	-	-	95,980	119,828	-	-
	$	-	-	1,340,637	1,357,718	-	-
Straw mfrs	$	63,593	134,188	3,140	5,461	406	6,266
Rags	cwt.	-	-	3,684	7,583	-	4
	$	-	-	28,716	52,960	-	107
Curtains and shams	$	422	257	72	220	84,549	138,488

[1] Figures for 1928 are subject to revision.

28.—Import and Export Trade of Canada with Italy, Netherlands and Switzerland, years ended Mar. 31, 1927 and 1928[1]—continued.

Articles.		Italy.		Netherlands.		Switzerland.	
		1927.	1928.	1927.	1928.	1927.	1928.
Imports for Consumption —concluded.							
Hats, shapes and crowns	$	37,908	69,677	–	181	1,255	6,190
Hats, felt	$	303,153	327,073	–	325	730	1,584
Hats, straw	$	71,944	84,872	284	–	9,508	14,188
Braids of grass, etc., for hats	$	16,065	5,899	–	–	160,789	112,410
Wood, manufactured	$	30,301	21,402	12,623	32,842	2,341	4,102
Paper and mfrs. of	$	4,941	6,771	12,369	31,613	64,106	64,395
Engines, steam	No.	–	–	1	–	1	–
	$	–	–	14,722	–	21,828	–
Machinery (except for farms)	$	5,622	4,743	1,852	5,139	20,338	52,935
Automobiles and parts	$	31,020	7,433	105	106	31	–
Aluminium and mfrs. of	$	191	620	18,313	21,975	7,217	21,087
Precious metals	$	195	766	168	1,237	15,083	28,023
Clocks	$	38,741	71,717	101	2,118	6,450	11,836
Watches	$	394	347	476	–	250,294	319,642
Watch cases	$	–	–	–	1,846	98,865	81,848
Watch actions and parts	$	–	–	–	–	1,035,611	959,970
Coal, anthracite	ton	–	–	37,802	5,155	–	–
	$	–	–	299,558	37,335	–	–
Carbolic oil	gal.	–	–	332,927	165,709	–	–
	$	–	–	51,000	38,066	–	–
Coke	ton	–	–	8,268	5,615	–	–
	$	–	–	52,657	31,329	–	–
Incandescent lamp bulbs and tubing for	$	–	300	28,714	57,853	–	–
Plate glass not over 7 sq. ft.		–	–	46,381	34,281	–	–
sq. ft.	$	–	–	16,231	8,926	–	–
Plate glass, n.o.p., not sq. ft.		–	–	47,414	44,180	–	–
bevelled or bent.	$	–	–	24,872	17,206	–	–
Marble and mfrs. of	$	119,630	76,837	–	–	–	434
Diamonds, unset	$	–	–	688,948	975,130	849	2,669
Citric acid	lb.	95,760	34,022	11,165	–	–	–
	$	28,087	10,814	3,143	–	–	–
Tartaric acid crystals	lb.	86,756	75,840	–	–	–	–
	$	19,585	16,270	–	–	–	–
Drugs and medicinal preparations	$	4,938	5,034	51,643	42,101	4,738	23,557
Aniline dyes	lb.	–	224	–	5	313,700	379,447
	$	–	38	–	38	231,961	204,976
Lithopone	lb.	–	–	5,620,181	7,643,180	–	–
	$	–	–	211,535	284,216	–	–
Zinc white	lb.	–	–	2,747,050	2,623,881	–	–
	$	–	–	193,832	178,098	–	–
Cream of tartar	lb.	217,204	109,638	–	–	–	–
	$	35,087	18,837	–	–	–	–
Brushes	$	2,027	–	697	732	3,047	11,395
Containers, n.o.p. (packages)	$	22,565	34,432	32,836	45,116	19,257	18,955
Braids, cords, fringes, etc.	$	71	1,478	–	835	22,746	6,599
Buttons of vegetable ivory.	gross	108,225	79,140	–	–	–	660
	$	46,683	31,810	–	–	–	602
Tobacco pipes, cigar holders, etc.	$	5,302	1,689	65	39	9	44
Musical instruments	$	6,324	9,835	354	12	22,753	17,406
Paintings	$	9,534	15,247	33,282	54,372	3,478	251
Statues and statuettes	$	29,343	29,754	596	844	151	374
Settlers' effects	$	12,470	15,903	26,775	8,940	900	4,055
Total Imports[2]	$	**3,444,062**	**4,241,862**	**7,693,668**	**8,748,713**	**9,491,779**	**8,595,677**

[1] Figures for 1928 are subject to revision. [2] Totals include other items not specified.

28.—Import and Export Trade of Canada with Italy, Netherlands and Switzerland, years ended Mar. 31, 1927 and 1928[1]—concluded.

Articles.		Italy.		Netherlands.		Switzerland.	
		1927.	1928.	1927.	1928.	1927.	1928.
Exports (Canadian).							
Apples	brl.	–	–	13,315	–	–	–
	$	–	–	64,330	–	–	–
Apples, dried	lb.	–	–	318,916	409,166	–	–
	$	–	–	27,822	43,109	–	–
Barley	bush.	–	108,710	3,351,981	2,790,187	–	–
	$	–	86,968	2,581,235	2,347,482	–	–
Buckwheat	bush.	–	–	165,246	153,102	–	–
	$	–	–	131,279	120,534	–	–
Oats	bush.	–	120,928	2,952,318	536,875	–	–
	$	–	54,414	1,675,398	327,843	–	–
Rye	bush.	–	17,143	282,513	1,499,232	–	–
	$	–	17,143	297,824	1,604,974	–	–
Wheat	bush.	12,155,668	9,510,408	9,884,239	15,693,557	–	–
	$	18,378,946	14,353,994	15,046,776	22,814,050	–	–
Oatmeal and rolled oats	cwt.	–	–	9,625	18,517	–	1
	$	–	–	28,931	84,718	–	4
Flour of wheat	brl.	49,951	40,965	82,607	66,616	–	–
	$	337,434	256,165	570,804	389,320	–	–
Oilcake	cwt.	–	–	58,611	56,258	–	–
	$	–	–	122,190	125,848	–	–
Rubber boots and shoes	pair	19,345	30,493	29,596	12,756	8,477	20,526
	$	48,506	50,474	18,766	10,700	7,731	17,925
Rubber tires	$	133,916	192,026	547,531	441,010	237,507	228,459
Codfish, dried	cwt.	95,937	68,040	–	–	–	–
	$	855,038	569,893	–	–	–	–
Salmon, canned	cwt.	65,722	63,801	6,163	2,921	322	168
	$	694,735	682,164	85,409	40,113	4,240	1,950
Sole leather	lb.	–	–	–	–	241,322	24,642
	$	–	–	–	–	101,332	12,709
Cheese	cwt.	26	1	2,924	2,594	–	–
	$	474	26	60,524	65,462	–	–
Milk, condensed	cwt.	–	–	33,852	44,731	–	–
	$	–	–	339,797	451,048	–	–
Grease and scraps	cwt.	–	–	12,858	11,977	–	–
	$	–	–	126,857	109,720	–	–
Lard	cwt.	–	–	5,209	5,513	–	–
	$	–	–	72,896	74,740	–	–
Honey	lb.	–	120	604,566	630,549	–	350
	$	–	16	42,541	40,598	–	24
Wood pulp	cwt.	203,905	230,630	–	110	–	–
	$	1,033,630	1,121,433	–	573	–	–
Paper and mfrs. of	$	20,193	11,542	28,923	40,168	18,488	11,823
Farm implements and machinery	$	137,178	32,090	69,355	217,269	9,273	9,859
Electric vacuum cleaners	No.	–	–	2,196	2,100	1,608	360
	$	–	–	86,030	78,745	62,838	14,487
Adding and calculating machines	No.	248	–	60	–	160	–
	$	39,646	–	4,500	–	14,025	–
Automobiles, passenger	No.	19	51	55	77	9	77
	$	11,399	62,846	34,347	46,676	5,849	49,759
Aluminium and mfrs. of	$	–	490,483	42	6,705	–	–
Lead and mfrs. of	$	290,363	–	681,999	777,272	–	–
Nickel, incl. oxide	cwt.	1,121	4,502	75,558	101,696	–	–
	$	41,237	160,963	2,584,710	3,508,165	–	–
Zinc spelter	cwt.	15,685	5,154	49,289	162,806	–	–
	$	110,112	29,673	341,923	908,510	–	–
Asbestos and asbestos sand	ton	4,694	2,445	2,813	4,473	–	–
	$	314,392	187,128	203,025	239,639	–	–
Coal	ton	26,451	8,903	5,487	7,207	–	–
	$	174,875	55,601	35,083	45,632	–	–
Cameras	$	21,037	99,841	6,690	14,153	9,666	32,834
Films	$	25,765	111,501	10,278	24,929	32,258	69,071
Total Exports (Canadian)[2]	$	**22,815,083**	**18,742,516**	**26,374,378**	**35,537,951**	**594,179**	**498,270**

[1]Figures for 1928 are subject to revision. [2]Totals include other items not specified.

29.—Import and Export Trade of Canada with Denmark, Norway and Sweden, years ended Mar. 31, 1927 and 1928.[1]

Articles.		Denmark.		Norway.		Sweden.	
		1927.	1928.	1927.	1928.	1927.	1928.
Imports for Consumption.							
Fish—sardines in boxes	box	24	-	6,071,215	6,882,068	5,260	15,300
	$	3	-	456,723	569,944	616	1,672
Fish—other preserved or canned	$	18	-	75,018	85,459	335	452
Cod liver oil	gal.	-	-	77,096	55,700	-	-
	$	-	-	67,220	65,097	-	-
Wrapping paper	lb.	-	-	140,283	250,722	1,937,067	1,586,057
	$	-	-	7,120	12,210	96,746	76,494
Iron ore	ton	-	-	-	-	38,554	32,470
	$	-	-	-	-	170,145	146,159
Ferro-manganese	cwt.	-	-	4,408	2,240	2,985	2,297
	$	-	-	23,016	12,361	25,121	22,649
Rolled iron bands, etc., over 3½c. per lb.	cwt.	-	-	-	-	981	3,546
	$	-	-	-	-	34,032	144,022
Iron or steel bars over 3½c. per lb.	cwt.	-	-	-	-	16,145	12,216
	$	-	-	-	-	147,726	83,261
Cream separators	$	17,657	4,837	-	-	154,166	106,802
Machinery	$	3,809	3,081	44,886	35,756	285,483	293,304
Saws	$	-	-	166	-	39,717	57,857
Other tools	$	33	291	-	180	51,099	75,989
Vehicles of iron	$	-	-	-	-	50,357	33,974
Articles for mfr. agric. implts. (iron)	$	-	-	-	-	67,241	24,156
Articles for building ships (iron)	$	7,336	1,300	4,520	876	63,497	53,352
Motors, electric	$	-	463	-	-	13,158	151,121
Other electric apparatus	$	382	1,013	-	-	107,297	35,993
Ammonium nitrate	lb.	-	-	1,971,087	2,198,520	-	-
	$	-	-	80,815	90,932	-	-
Total Imports[2]	$	**175,215**	**126,283**	**911,357**	**1,064,215**	**1,643,973**	**1,862,120**
Exports (Canadian).							
Apples	brl.	3,633	11,681	1,241	3,592	3,070	15,798
	$	19,542	55,992	5,941	20,950	14,647	85,089
Barley	bush.	-	237,465	59,033	254,607	-	-
	$	-	187,444	41,323	227,677	-	-
Rye	bush.	21,259	182,060	176,958	697,080	-	56,621
	$	23,305	199,839	181,130	772,840	-	58,989
Wheat	bush.	399,864	833,912	670,054	896,817	1,190,569	1,970,313
	$	573,975	1,078,336	967,332	1,226,144	1,745,193	2,789,868
Flour of wheat	brl.	267,136	281,416	275,842	285,811	92,523	68,137
	$	1,901,966	1,875,876	1,739,716	1,909,919	642,117	461,774
Sugar of all kinds, n.o.p.	cwt.	-	-	207,042	194,205	-	-
	$	-	-	1,174,613	1,055,439	-	-
Rubber manufactures	$	989,161	850,226	243,624	123,799	266,004	279,541
Clover seed, alsike	bush.	2,679	2,948	-	-	-	-
	$	42,424	35,590	-	-	-	-
Foxes	No.	-	4	83	1,246	58	55
	$	-	600	28,200	436,050	21,100	20,970
Lobsters, canned	cwt.	1,769	963	289	267	3,835	3,613
	$	143,532	79,919	25,022	21,872	301,594	298,428
Upper leather	$	19,693	19,535	-	-	7,601	73,608
Felt manufactures	$	-	257	54,417	81,692	39,776	59,146
Farm implements and machinery	$	86,631	199,347	23,283	39,648	166,413	109,467
Razors and blades	$	1,323,199	1,510,250	-	-	-	-
Automobiles	No.	195	65	202	402	175	325
	$	197,532	54,078	134,779	246,940	109,662	221,175
Automobile parts	$	87,600	15,096	1,079	650	207	4,805
Aluminium and mfrs. of	$	-	-	116,403	161,514	-	-
Electrodes, carbon, etc.	$	-	-	159,622	132,255	17,848	32,255
Films	$	24,097	61,659	-	-	-	-
Total Exports (Canadian)[2]	$	**5,666,387**	**6,390,662**	**5,028,104**	**6,665,770**	**3,415,805**	**4,612,342**

[1]Figures for 1928 are subject to revision. [2]Totals include other items not specified.

30.—Import and Export Trade of Canada with Greece, Irish Free State and Spain, years ended Mar. 31, 1927 and 1928.[1]

Articles.		Greece.		Irish Free State.		Spain.	
		1927.	1928.	1927.	1928.	1927.	1928.
Imports for Consumption.							
Grapes	lb.	–	–	–	–	141,255	225,045
	$	–	–	–	–	20,547	26,106
Currants, dried	lb.	3,384,898	1,109,149	–	–	39,544	–
	$	190,994	87,442	–	–	2,233	–
Figs, dried	lb.	129,408	96,015	–	–	173,869	175,577
	$	9,865	4,891	–	–	11,363	14,916
Raisins	lb.	60,496	18,655	–	–	1,035,839	611,118
	$	5,715	2,370	–	–	110,631	100,690
Fruits, prepared, n.o.p. (except dried)	$	34,863	12,646	–	–	180,593	160,585
Nuts	$	395	–	–	–	770,572	782,874
Onions	$	–	–	–	–	62,801	77,774
Vegetables, canned	lb.	9,688	–	–	–	294,003	419,987
	$	755	–	–	–	28,743	39,586
Rice, uncleaned	cwt.	–	–	–	–	30,663	31,344
	$	–	–	–	–	133,214	117,070
Olive oil, edible	gal.	–	–	–	–	12,402	21,380
	$	–	–	–	–	18,977	41,892
Wines, non-sparkling	$	172	818	8,279	1,605	294,581	429,457
Furs, undressed	$	–	3,996	–	–	36,611	81,705
Wool, raw	lb.	–	–	38,716	10,383	–	–
	$	–	–	11,355	3,024	–	–
Wool carpets	$	38,947	117,075	–	–	–	–
Cork manufactures	$	–	–	–	–	309,907	407,572
Mercury	lb.	–	–	–	–	63,948	54,010
	$	–	–	–	–	53,046	72,514
Salt	cwt.	–	–	–	–	403,988	300,537
	$	–	–	–	–	50,405	45,832
Total Imports[2]	$	**329,031**	**254,134**	**47,140**	**29,611**	**2,220,823**	**2,572,150**
Exports (Canadian).							
Barley	bush.	–	–	43,055	191,176	–	–
	$	–	–	31,301	185,759	–	–
Oats	bush.	–	–	84,701	9,433	–	–
	$	–	–	48,939	5,660	–	–
Wheat	bush.	1,778,959	1,410,259	1,201,515	833,402	–	–
	$	2,828,365	2,149,688	1,937,067	1,211,043	–	–
Oatmeal and rolled oats	cwt.	–	–	9,735	5,837	–	–
	$	–	–	42,163	36,056	–	–
Flour of wheat	brl.	496,386	346,300	290,407	294,592	–	–
	$	3,057,184	2,043,140	2,092,145	2,092,763	–	–
Rubber tires	$	2,903	607	53,269	230,599	37,932	39,590
Salmon, canned	cwt.	8,667	2,477	113	787	12	1
	$	86,994	26,951	1,640	9,211	119	15
Cheese	cwt.	142	69	3,943	243	37	28
	$	2,990	1,554	100,570	5,665	918	747
Planks and boards	M ft.	–	–	12,170	10,265	–	–
	$	–	–	325,696	286,831	–	–
Wood pulp	cwt.	–	–	–	–	12,794	10,028
	$	–	–	–	–	66,610	49,167
Match splints	$	–	–	92,508	90,155	–	–
Paper board	$	–	–	44,402	39,468	–	–
Farm implements and machinery	$	9,341	17,428	9,084	4,874	236,202	199,264
Automobiles	No.	3	13	–	–	47	1
	$	1,328	12,255	–	–	27,266	1,502
Aluminium mfrs.	$	–	–	–	–	86,394	119,538
Insulators, porcelain	$	–	–	–	–	11,945	42,496
Coal	ton	2,995	2,027	210,438	2,256	–	501
	$	18,762	12,264	1,157,947	13,553	–	3,006
Soap	lb.	–	–	63,126	279,115	–	–
	$	–	–	7,716	33,743	–	–
Soda and sodium compounds	cwt.	–	–	–	–	4,090	10,000
	$	–	–	–	–	25,481	63,700
Total Exports (Canadian)[2]	$	**6,023,161**	**4,282,227**	**6,057,004**	**4,325,251**	**543,022**	**609,653**

[1] Figures for 1928 are subject to revision. [2] Totals include other items not specified.

31.—Import and Export Trade of Canada with British India, Ceylon and Straits Settlements, years ended Mar. 31, 1927 and 1928.[1]

Articles.		British India.		Ceylon.		Straits Settlements.	
		1927.	1928.	1927.	1928.	1927.	1928.
Imports for Consumption.							
Pineapples, canned	lb.	–	–	–	–	7,321,778	6,902,037
	$	–	–	–	–	370,134	366,670
Cocoanut, desiccated	lb.	–	–	2,020,545	2,484,942	–	–
	$	–	–	153,959	180,819	–	–
Rice	cwt.	64,544	104,007	–	–	–	–
	$	192,944	264,447	–	–	–	–
Sago and tapioca flour	lb.	–	–	–	–	284,240	756,642
	$	–	–	–	–	12,156	23,496
Sago and tapioca	lb.	36,000	–	–	–	1,498,986	1,371,408
	$	988	–	–	–	44,503	41,814
Cocoa beans, not roasted, etc.	cwt.	–	–	5,851	5,505	–	–
	$	–	–	72,145	87,121	–	–
Coffee, green	lb.	83,286	85,989	–	35,273	–	–
	$	24,205	21,725	–	8,730	–	–
Spices	$	79,587	72,458	817	–	164,414	309,479
Tea	lb.	9,755,836	12,046,383	5,817,442	6,622,907	–	–
	$	3,126,347	3,705,743	2,135,135	2,286,562	–	–
Oils, vegetable, not food	$	309	27,922	204,078	122,410	–	–
Rubber, crude	lb.	2,240	16,170	–	82,544	4,005,185	3,806,891
	$	1,133	6,767	–	33,035	1,629,318	1,420,407
Jute cloth and canvas	yd.	57,975,507	66,495,883	–	–	–	–
	$	4,020,056	4,744,539	–	–	–	–
Bags of linen, hemp, jute	$	81,069	60,865	–	–	61	–
Wool carpets	$	86,021	74,806	–	19	–	–
Coir and yarn	lb.	609,840	447,552	–	–	–	–
	$	42,496	28,374	–	–	–	–
Tin in blocks	cwt	–	–	–	–	8,111	4,365
	$	–	–	–	–	523,510	275,471
Mica and mfrs	$	27,595	13,878	–	–	–	–
Precious stones	$	30,250	73,941	1,716	–	–	492
Total Imports[2]	$	**7,880,914**	**9,239,779**	**2,612,831**	**2,731,531**	**2,756,817**	**2,459,045**
Exports (Canadian).							
Sugar of all kinds, n.o.p.	cwt.	99,680	–	–	–	–	–
	$	444,825	–	–	–	–	–
Rubber belting	lb.	79,355	35,324	6,639	–	20,286	45,841
	$	33,531	11,091	2,988	–	8,121	15,203
Rubber boots and shoes	pair	285,240	312,098	4,025	1,935	39,288	7,627
	$	230,597	225,894	3,569	1,862	29,117	6,268
Rubber tires	$	1,056,355	1,330,938	216,092	171,723	651,391	548,104
Salmon, canned	cwt.	1,917	1,932	652	2,504	10,619	8,365
	$	20,322	21,900	6,560	26,431	103,687	84,093
Railroad ties	No.	48,904	–	–	–	–	–
	$	34,559	–	–	–	–	–
Planks and boards	M ft	1,076	919	148	–	133	84
	$	20,494	18,428	3,111	–	3,730	2,452
Rolling mill products	$	–	277,820	–	–	–	–
Wire, iron, woven fencing	$	67,537	78,854	1,235	430	–	–
Automobiles, freight	No.	4,623	5,877	315	300	999	264
	$	1,600,702	2,120,809	101,425	110,865	358,886	77,477
Automobiles, passenger	No.	6,187	5,682	598	715	2,188	696
	$	2,770,966	2,937,664	297,656	384,081	829,046	302,539
Automobile parts	$	410,783	267,512	46,653	11,423	264,296	321,790
Aluminium and mfrs of.	$	1,251	82,324	–	170	2,972	507
Silver bullion	oz.	4,874,098	5,460,342	–	–	–	–
	$	2,859,500	3,067,700	–	–	–	–
Zinc, spelter	cwt.	5,824	1,568	–	–	–	–
	$	40,976	9,613	–	–	–	–
Electric apparatus	$	25,329	39,071	4,904	2,834	23,216	19,472
Medicinal preparations	$	35,044	49,229	698	1,044	1,035	659
Calcium carbide	cwt.	4,257	5,271	762	880	220	–
	$	15,945	18,983	2,858	3,115	825	–
Total Exports (Canadian)[2]	$	**9,995,386**	**11,042,851**	**708,096**	**727,369**	**2,460,430**	**1,492,373**

[1] Figures for 1928 are subject to revision. [2] Totals include other items not specified.

32.—Import and Export Trade of Canada with China, Hong Kong and Japan, years ended Mar. 31, 1927 and 1928.[1]

Articles.		China.		Hong Kong.		Japan.	
		1927.	1928.	1927.	1928.	1927.	1928.
Imports for Consumption.							
Oranges	$	1,146	1,079	4,211	2,529	287,608	315,775
Nuts	$	868,469	900,704	11,170	11,187	6,909	10,040
Vegetables, fresh	$	11,300	11,320	38,207	34,247	24,196	34,849
Vegetables, canned	lb.	112,032	77,047	308,358	331,386	175,796	162,723
	$	10,675	8,741	32,643	32,646	48,466	53,070
Pickles and sauces	gal.	5,827	2,147	48,061	50,608	86,944	87,265
	$	3,769	2,071	27,161	27,661	39,888	43,456
Beans	bush.	460	460	4,474	4,157	94,126	101,397
	$	919	898	8,459	8,244	147,311	220,236
Rice	cwt.	7,520	632	151,082	152,448	50,849	58,040
	$	29,458	2,726	593,613	559,466	304,867	301,280
Peanut and soya bean oil	gal.	3,760	31,460	34,378	34,905	242	320
	$	3,971	32,267	37,395	38,673	342	361
Ginger, preserved	lb.	170,055	191,426	243,607	274,286	6,310	6,024
	$	22,165	17,429	29,381	26,610	556	567
Spices	$	10,746	12,717	7,535	9,073	3,238	5,380
Tea	lb.	854,880	722,114	178,551	213,013	3,687,390	3,621,119
	$	149,625	112,705	48,988	61,010	672,157	644,452
Beverages, alcoholic	$	40,501	45,333	48,051	39,793	94,900	95,001
Peanut oil for refining	lb.	274,556	29,431	–	–	–	–
	$	2,495,090	244,006	–	–	–	–
Drugs, crude, vegetable	$	1,769	329	21,993	22,182	14,972	18,295
Bone, ivory and shell products	$	5,946	91	257	587	45,153	51,725
Fish, dried, salted, pickled	lb.	3,755	260	145,395	160,298	110,887	110,140
	$	798	154	37,391	36,962	51,512	47,348
Fish, canned	$	2,201	2,135	28,825	37,699	52,045	63,533
Furs, undressed	$	131,038	97,312	–	–	11,144	39,210
Furs, dressed	$	45,734	50,981	286	–	–	–
Bristles, animal	lb.	42,081	42,086	–	–	147	612
	$	43,722	47,164	–	–	1,136	3,240
Albumen and egg yolk	$	107,152	73,396	–	6	–	–
Eggs in the shell	doz.	1,924	175	47,921	60,031	–	–
	$	594	72	15,303	26,440	–	–
Eggs, n.o.p.	lb.	1,318,091	761,663	–	–	–	–
	$	242,376	187,607	–	–	–	–
Cotton fabrics, dyed	yd.	1,542	7,713	213	2,447	1,028,858	576,168
	$	626	2,062	77	646	93,438	52,610
Cotton lace, net, etc.	$	45,805	44,485	161	1,399	1,490	1,983
Cotton clothing	$	17,016	7,629	10,775	11,769	94,477	88,391
Silk and manufactures	$	52,660	46,114	7,104	10,592	6,910,638	8,250,471
Wool carpets	$	93,469	123,416	181	251	38,315	58,760
Fishing lines and nets	$	–	–	10	–	88,210	59,695
Hair nets	$	34,995	29,028	–	3	1,171	–
Braids, plaits for hats	$	26,333	4,679	–	–	43,540	2,210
Furniture of wood	$	6,656	7,854	60,125	58,222	9,325	11,593
Paper and mfrs. of	$	1,905	2,825	16,565	15,030	21,668	23,478
Brass and mfrs. of	$	3,152	43,911	2,130	1,082	6,788	8,506
Lamps, electric, incandescent	No.	–	–	–	–	1,093,793	1,518,407
	$	–	–	–	–	50,982	71,939
Lamps, electric, incandescent, carbon	No.	–	–	–	–	1,623,986	2,156,482
	$	–	–	–	–	95,665	100,100
Chinaware, clay products	$	8,346	4,126	6,998	9,926	438,363	400,130
Glass and glassware	$	283	389	204	666	32,620	33,975
Drugs and medicinal preparations	$	13,780	8,558	37,770	38,178	13,967	13,220
Camphor	lb.	–	–	4	21	42,358	53,262
	$	–	–	8	17	29,962	30,872
Dolls	$	122	30	120	141	37,055	38,448
Toys	$	1,440	306	402	611	47,398	49,643
Brushes	$	745	166	2,079	1,422	186,225	119,787
Buttons	$	–	2	–	12	170,254	136,101
Jewellery	$	4,006	3,090	376	736	4,180	31,430
Precious stones	$	159	82	38	–	25,946	54,526
Total Imports[2]	$	**5,041,592**	**2,572,453**	**1,422,207**	**1,440,897**	**11,170,380**	**12,505,373**

[1]Figures for 1928 are subject to revision. [2]Totals include other items not specified.

32.—Import and Export Trade of Canada with China, Hong Kong and Japan, years ended Mar. 31, 1927 and 1928[1]—concluded.

Articles.		China.		Hong Kong.		Japan.	
		1927.	1928.	1927.	1928.	1927.	1928.
Exports (Canadian).							
Wheat	bush.	3,397,065	2,364,540	–	–	6,740,058	9,919,849
	$	4,336,700	2,555,050	–	–	9,139,579	11,032,655
Wheat flour	brl.	427,357	795,451	104,354	269,238	95,551	187,665
	$	2,430,807	3,963,852	599,280	1,485,258	521,892	997,430
Alcoholic beverages	$	34,677	80,305	10,160	11,742	11,267	9,830
Rubber tires	$	52,568	44,987	13,275	190	350,233	437,283
Fish, dried, salted, pickled	$	643,573	843,653	394,107	565,352	1,013,753	953,906
Other fishery products	$	8,124	5,317	7,363	14,792	423,484	17,258
Cattle hides	cwt.	–	–	–	–	16,083	12,897
	$	–	–	–	–	211,404	256,461
Meats	$	3,801	62,068	21,298	9,645	251,612	90,982
Butter	cwt.	2,460	1,327	132	100	5,449	3,104
	$	90,215	47,218	5,458	4,270	204,522	121,851
Cheese	cwt.	520	1,442	120	632	562	569
	$	15,307	35,458	3,935	18,450	16,976	17,297
Milk, condensed	cwt.	7,618	–	2,895	–	14,690	–
	$	106,230	–	36,954	–	209,888	–
Felt manufactures	$	–	1,859	1,936	521	75,060	98,416
Logs	M ft.	1,517	1,709	–	–	153,549	147,703
	$	16,419	21,364	–	–	1,945,339	1,764,971
Piling	lin. ft.	6,963	3,210	–	–	640,765	852,328
	$	2,785	457	–	–	67,351	104,290
Poles, telegraph	No.	1,381	58	–	–	1,045	297
	$	3,920	252	–	–	10,153	3,118
Railroad ties	No.	–	81,900	–	–	304	–
	$	–	52,380	–	–	300	–
Planks and boards	M ft.	7,289	7,608	–	689	81,841	98,153
	$	141,399	154,138	–	15,316	1,735,658	2,101,336
Timber, square	M ft.	945	199	425	448	77,638	103,060
	$	24,008	3,975	11,775	10,570	1,562,213	2,065,547
Shooks	$	38,509	–	–	–	15,600	–
Wood pulp	cwt.	–	–	–	–	781,032	1,108,363
	$	–	–	–	–	2,188,714	2,931,859
Paper and mfrs. of	$	27,126	11,040	1,528	796	437,557	520,002
Scrap iron	ton	10	–	–	6	4,087	7,750
	$	120	–	–	115	43,653	88,420
Iron bars and rods	ton	609	684	–	–	2,453	2,641
	$	11,836	11,685	–	–	84,140	82,915
Iron pipe and tubing	$	63,638	66,099	–	–	–	169
Farm implements	$	36,562	22,622	1,021	2,790	13,948	9,073
Automobiles	No.	626	231	16	75	1,160	390
	$	469,365	166,564	12,968	47,250	777,359	261,570
Automobile parts	$	3,113	110	195	–	53,174	57,886
Aluminium and mfrs of	$	796	1,841	–	978	1,044,067	1,342,197
Lead, pig, refined, etc	cwt.	96,416	114,509	2,803	2,912	617,039	809,321
	$	610,186	548,088	17,494	15,819	3,969,789	3,861,975
Nickel	cwt.	–	–	–	–	2,543	4,516
	$	–	–	–	–	91,871	167,290
Silver bullion	oz.	6,261,305	7,475,228	401,797	–	–	–
	$	3,770,772	4,196,150	234,671	–	–	–
Zinc spelter	cwt.	9,404	5,959	–	–	270,567	306,221
	$	70,220	38,850	–	–	2,030,065	1,860,356
Electric apparatus	$	2,366	4,590	1,500	–	33,516	89,800
Asbestos	$	–	–	–	–	296,167	382,053
Coal	ton	–	2,155	–	–	11,401	8,326
	$	–	15,192	–	–	81,870	55,824
Ammonium sulphate	cwt.	62,588	41,114	3,180	75,492	161,203	85,127
	$	147,511	94,620	8,596	164,663	374,102	181,632
Cobalt oxide and salts	lb.	22,850	19,859	–	–	16,500	25,500
	$	47,415	39,595	–	–	36,025	52,800
Musical instruments	$	31,682	12,877	2,758	4,106	19,852	33,921
Films	$	65,687	85,270	2,500	–	364,924	315,157
Ships and vessels	$	–	–	–	–	–	226,090
Total Exports (Canadian)[2]	$	**13,513,939**	**13,432,396**	**1,469,274**	**2,465,946**	**29,929,031**	**32,957,162**

[1]Figures for 1928 are subject to revision. [2]Totals include other items not specified.

33.—Import and Export Trade of Canada with Australia, New Zealand and British South Africa, years ended Mar. 31, 1927 and 1928.[1]

Articles.		Australia.		New Zealand.		British South Africa.	
		1927.	1928.	1927.	1928.	1927.	1928.
Imports for Consumption.							
Grapes	lb.	30,415	76,613	–	–	–	–
	$	7,738	10,971	–	–	–	–
Currants, dried	lb.	933,112	5,039,843	–	–	–	–
	$	107,667	534,588	–	–	–	–
Raisins	lb.	824,691	3,491,883	–	–	194,903	189,710
	$	121,024	373,158	–	–	19,082	17,306
Pineapples canned	lb.	–	–	–	–	493,155	1,120,744
	$	–	–	–	–	34,150	90,446
Fruits, canned, other	lb.	611,771	276,501	–	6	–	–
	$	50,432	24,789	–	2	–	–
Onions	$	–	29,488	–	3,184	–	–
Sugar not above No. 16 D.S.	cwt.	793,033	401,977	–	–	173,693	–
	$	4,451,264	1,867,134	–	–	775,596	–
Sugar above No. 16 D.S.	cwt.	–	158,274	–	–	–	–
	$	–	885,000	–	–	–	–
Molasses	gal.	–	–	–	–	–	1,159,081
	$	–	–	–	–	–	132,135
Wines	$	8,560	18,604	–	–	–	–
Gums, Australian, copal, kaurie, etc.	lb.	–	–	295,721	365,636	–	–
	$	–	–	30,375	32,695	–	–
Seeds	$	–	49	55,520	59,302	–	–
Furs, undressed	$	132,904	29,903	2,453	–	–	–
Hides and skins, raw, calf	cwt.	–	10	4,598	4,691		
	$	–	306	101,519	133,568		
Hides and skins, raw, cattle	cwt.	5,123	28,133	14,451	8,718		
	$	69,034	526,247	182,721	147,472	28,889	52,682
Hides and skins, raw, sheep	cwt.	–	–	3,557	348		
	$	–	–	111,519	8,002	–	
Beef, fresh	lb.	49,422	–	–	201,928	–	–
	$	4,253	–	–	13,103	–	–
Mutton	lb.	895,268	1,179,242	12,735	376,544	–	–
	$	113,217	153,658	2,098	43,171	–	–
Canned meats	lb.	140,675	62,843	123,134	135,900	–	–
	$	21,383	11,372	16,351	16,244	–	–
Butter	lb.	801,324	571,872	4,904,536	13,623,917	–	–
	$	289,098	214,780	1,728,020	4,817,070	–	–
Cheese	lb.	18	3,132	15	169,866	–	–
	$	10	582	6	31,599	–	–
Grease, rough, for soap and oils	cwt.	13,288	12,848	113,646	–	–	–
	$	103,954	81,709	8,564	–	–	–
Gelatine	lb.	227,523	266,042	24,920	35,960	–	–
	$	55,622	61,659	6,185	8,892	–	–
Sausage casings	$	143,662	901	1,442,617	1,854,876	–	–
Hemp	cwt.	–	–	2,357	1,694	–	–
	$	–	–	17,899	13,370	–	–
Wool, raw	lb.	676,244	320,324	3,023,475	3,474,328	277,110	141,172
	$	279,065	137,321	806,500	987,579	108,805	63,631
Wool tops	lb.	209,589	137,712	–	–	–	–
	$	226,655	146,796	–	–	–	–
Manila grass	cwt.	–	–	1,111	1,811	–	–
	$	–	–	8,833	13,006	–	–
Vegetable fibre, n.o.p.	cwt.	–	–	2,677	1,593	–	–
	$	–	–	18,782	12,359	–	–
Gumwood lumber	M ft.	31	127	–	–	–	–
	$	3,370	13,561	–	–	–	–
Lumber, dressed one side, n.o.p.	$	10,610	14,246	–	–	–	–
Adding machines	$	–	20,000	–	–	–	–
Articles re-imported	$	40,020	8,870	18,735	26,786	–	–
Ships' stores	$	7,092	3,998	4,355	21,792	–	–
Settlers' effects	$	5,704	10,840	3,335	2,435	–	–
Total Imports[2]	$	**6,296,165**	**5,301,618**	**4,577,546**	**8,262,322**	**1,001,592**	**404,364**

[1]Figures for 1928 are subject to revision. [2]Totals include other items not specified.

33.—Import and Export Trade of Canada with Australia, New Zealand and British South Africa, years ended Mar. 31, 1927 and 1928[1]—concluded.

Articles.		Australia.		New Zealand.		British South Africa.	
		1927.	1928.	1927.	1928.	1927.	1928.
Exports (Canadian).							
Apples	brl.	–	–	13,591	11,668	7,815	9,274
	$	–	–	82,700	63,386	43,123	50,404
Onions	bush.	–	–	68,673	24,469	–	–
	$	–	–	106,089	33,517	–	–
Wheat	bush.	–	–	–	–	324,009	561,718
	$	–	–	–	–	479,987	833,165
Wheat flour	brl.	35	343	5,956	33,180	64,671	80,058
	$	332	2,807	36,625	220,816	499,260	621,920
Confectionery, all kinds	$	19,387	30,836	178,258	129,855	107,173	132,857
Rubber belting	lb.					141,558	200,999
	$					75,380	85,748
Rubber boots and shoes	pair	1,455,680[3]	813,845[3]	2,251,228[3]	3,454,951[3]	129,915	316,891
	$					115,638	213,603
Rubber tires	$					1,083,233	1,715,842
Other rubber	$					52,694	59,043
Fish, canned	$	2,116,906	1,724,087	557,325	444,185	231,975	218,892
Leather and mfrs. of	$	2,572	1,354	196,043	136,196	8,845	9,662
Cheese	cwt.	–	–	–	–	1,308	1,790
	$	–	–	–	–	36,002	50,753
Milk, condensed	cwt.	–	–	–	–	11,050	5,328
	$	–	–	–	–	111,621	52,778
Cotton manufactures	$	9,457	21,852	96,733	94,678	39,380	30,341
Binder twine	cwt.	–	22,400	–	–	5,752	5,697
	$	–	222,382	–	–	64,929	59,002
Corsets and brassieres	No.	36,746	14,337	77,330	89,099	–	–
	$	79,425	28,928	112,951	96,556	–	–
Clothing, other, and gloves (textile)	$	205,820	164,664	132,269	171,973	–	–
Wood, unmanufactured (incl. lumber)	$	1,238,376	1,405,712	676,676	435,563	320,021	494,657
Wood, manufactured	$	3,284	1,333	110,057	54,717	121,640	94,163
Paper board	$	33,971	30,212	63,004	58,855	107,377	151,981
Paper, printing	cwt.	739,638	1,075,712	316,419	334,943	202,824	162,172
	$	2,760,726	3,903,787	1,215,208	1,287,031	914,729	630,505
Paper, wrapping	cwt.	49,772	28,813	36,604	31,692	88,651	78,535
	$	289,216	173,290	209,484	176,712	526,330	461,872
Paper, bond and writing	cwt.	8,408	4,237	9,619	7,202	–	–
	$	60,113	33,625	73,857	54,559	–	–
Paper, hanging or wall	roll	389,715	388,687	359,166	278,266	–	–
	$	70,456	68,830	50,497	43,911	–	–
Iron bars and rods	ton	22	19	14,625	7,653	–	–
	$	1,780	849	552,049	296,451	–	–
Railroad rails	ton	–	–	11,183	111	–	–
	$	–	–	456,971	2,300	–	–
Structural steel	ton	62	–	794	1,620	–	–
	$	3,077	–	78,679	146,970	–	–
Iron pipe and tubing	$	212,697	162,301	324,936	222,711	111,927	186,575
Wire, iron	$	100,651	70,908	395,668	380,085	–	–
Farm implements and machinery	$	1,853,261	1,814,977	285,071	269,506	1,027,146	1,156,300
Razors	$	761,769	125,000	43,976	58,534	–	–
Nails, spikes, tacks of all kinds	cwt.	1,575	1,858	60,574	41,390	–	–
	$	16,591	19,150	225,267	159,555	–	–
Machinery	$	143,706	335,288	132,903	102,696	15,102	25,804
Tools	$	18,822	12,695	77,536	70,797	48,651	59,361
Automobiles	No.	17,612	2,210	5,523	1,127	3,589	749
	$	5,032,000	927,991	2,346,991	682,265	1,310,816	382,089
Automobile parts	$	794,814	628,780	341,737	232,765	216,998	188,455
Copper and mfrs. of	$	200	188	123,790	54,794	–	–
Electric apparatus	$	227,174	271,998	624,848	471,686	145,582	202,165
Asbestos	$	123,243	121,076	533	1,001	–	–
Coal	ton	19,819	22,317	1,283	17,418	9,200	9,923
	$	149,747	173,524	8,128	99,842	55,890	67,865
Calcium carbide	cwt.	7,722	6,392	12,803	12,663	3,288	2,211
	$	28,960	22,826	48,593	46,742	12,166	7,612
Musical instruments	$	354,193	250,015	168,665	135,742	18,685	16,412
Total Exports (Canadian).[2]	$	**18,965,881**	**14,192,438**	**13,538,513**	**11,366,550**	**8,388,731**	**8,725,216**

[1]Figures for 1928 are subject to revision. [2]Totals include other items not specified. [3]Total exports of rubber and its products.

Subsection 10.—Comparison of the Volume of Imports and Exports.

NOTE.—Further information as to the methods adopted in making the following analyses will be found on p. 752 of the Bureau's Annual Report on the Trade of Canada for the fiscal year ended Mar. 31, 1928.

The statistics of the external trade of Canada have not until lately been analysed in detail to reveal the physical volume of external trade as well as the dollar value of that trade, and have therefore been somewhat misleading when used to show the physical growth of production and external trade. When, for example, Table 1 of this Chapter is examined, it seems to show stagnation in our external trade between the early 70's and the middle 90's of the last century, and an extremely rapid growth thereafter. Yet we know that the stagnation was partly due to the fall in general prices between the 70's and the middle 90's, while the rapid growth of the last generation is exaggerated by the rise of prices since 1897 and more particularly since 1914. Thus the figures as published give us no true measure of the volume of our external trade, yet it is the volume rather than the value of the commodities which satisfy human needs with which the masses of the population are more intimately concerned. Volume is from many points of view a more important consideration than value, and it is desirable to secure a record of the fluctuations in the volume of the country's trade as distinguished from the value thereof. This is what is attempted in the following tables.

The method adopted for ascertaining the fluctuations in volume has been to take a base year—1914 or 1927— and to re-value the quantities of each commodity imported or exported in any given year at the average import or export value of that commodity in the standard or base year. Where quantities are not available, the values of items are assumed to have moved in the same direction and in the same proportions as closely related commodities. The results of this method, as applied to the fiscal year ended 1928 as compared with 1927, show that the imports for consumption in the later year were 109·1 p.c. of the quantity of those in the earlier, while average values in 1928 were 98·6 p.c. of those in 1927, the declared value being 107·6 p.c. of that of 1927. On the other hand, exports of Canadian produce in 1928 were only 101·0 p.c. in quantity of those in 1927, while average values were 97·1 p.c. or 1·5 p.c. lower than the average value of imports; the declared value in 1928 was 98·1 p.c. of that in 1927. Thus imports were higher in average value in 1928 as compared with 1927 than exports were—a phenomenon which shows the danger of weighting both figures according to the fluctuation of the index number of wholesale prices, and the necessity of having a separate index of import and export valuations.[1] A table showing the fluctuations of each important group of commodities imported and exported in 1928 as compared with 1927 is appended (Table 34). For details by commodities see the Bureau's Annual Report on the Trade of Canada, 1928, pp. 756-771.

[1]See p. 788 for index numbers of import and export valuations.

34.—Comparison of the Value and Volume of the External Trade of Canada, by Main Groups, for the fiscal years ended Mar. 31, 1927 and 1928. ("000" omitted).

IMPORTS FOR HOME CONSUMPTION.

Classification.	1928 Declared values.	1928 Quantities at 1927 values.	1927 Declared values.	Index Numbers, 1928 compared with 1927. (1927=100).	
				Quantities.	Average values.
	000$	000$	000$		
Agricultural and Vegetable Products—A. Mainly Food	136,267	129,082	126,355	102·2	105·6
Agricultural and Vegetable Products—B. Other than Food	101,918	110,331	86,743	127·2	92·4
Agricultural and Vegetable Products (A and B)	238,185	239,413	213,098	112·3	99·5
Animals and Animal Products	65,790	58,193	53,214	109·4	113·1
Fibres and Textiles	186,996	180,687	183,584	98·4	103·5
Wood, Wood Products and Paper	51,751	51,780	47,962	108·0	99·9
Iron and its Products	259,574	266,920	229,430	116·3	97·2
Non-Ferrous Metals and their Products	60,190	62,354	52,748	118·2	96·5
Non-Metallic Minerals and their Products	153,049	170,565	156,785	108·8	89·7
Chemicals and Allied Products	33,572	33,804	31,845	106·2	99·3
Miscellaneous	59,849	61,075	62,227	98·1	98·0
Grand Total	**1,108,956**	**1,124,791**	**1,030,893**	**109·1**	**98·6**

EXPORTS OF CANADIAN PRODUCE.

Classification.	1928 Declared values.	1928 Quantities at 1927 values.	1927 Declared values.	Index Numbers, 1928 compared with 1927 (1927=100).	
				Quantities.	Average values.
	000$	000$	000$		
Agricultural and Vegetable Products.—A. Mainly Food	484,317	511,656	505,502	101·2	94·7
Agricultural and Vegetable Products—B. Other than Food	70,794	76,291	69,492	109·8	92·8
Agricultural and Vegetable Products—(A and B)	555,111	587,947	574,994	102·3	94·4
Animals and Animal Products	165,845	155,608	167,292	93·0	106·6
Fibres and Textiles	10,904	11,658	7,666	152·1	93·5
Wood, Wood Products and Paper	284,543	288,942	284,120	101·7	98·5
Iron and its Products	62,754	61,305	74,285	82·5	102·4
Non-Ferrous Metals and their Products	90,841	99,130	80,639	122·9	91·6
Non-Metallic Minerals and their Products	25,281	25,070	28,510	87·9	100·8
Chemicals and Allied Products	17,893	19,509	16,575	117·7	91·7
Miscellaneous	15,036	15,235	18,077	84·3	98·7
Grand Total	**1,228,208**	**1,264,404**	**1,252,158**	**101·0**	**97·1**

Comparison with Pre-war Year.—It is a comparatively easy thing to compare the volume of the trade in a particular year with that in the preceding year, and the margin of error is comparatively small. When, however, a comparison of the volume of trade in a particular year with that of another year ten or more years before is undertaken, the margin of error is very much greater. Certain new commodities have come into existence in the course of the decade, while the qualities of others have been materially changed; further, various new items have been added to the customs classifications, and it is not always possible to say just what customs items in 1928 correspond with those of 1914. However, in view of the great changes in values since before the war, there is a strong public demand for the comparison of the volume of trade in post-war years with a pre-war year, and the revaluation on the basis of the pre-war fiscal year ended Mar. 31, 1914, re-states

the current trade of Canada, with as much accuracy as possible, in terms of pre-war values.

It appears from this re-statement (Table 35) that, while the declared value of exports of Canadian produce nearly trebled between 1914 and 1928 (the 1928 exports being 284·5 p.c. of those of 1914), the volume of exports more than doubled, the 1928 exports being 201·5 p.c. of those of 1914. On the other hand, while the declared value of 1928 imports was four-fifths greater than in 1914, the actual volume of 1928 imports was only 151·7 p.c. of their volume in 1914. For details see the Bureau's Annual Report on the Trade of Canada, 1928, pp. 773-776.

35.—Comparison of the Value and Volume of the External Trade of Canada, by Main Groups, for the pre-war fiscal year ended Mar. 31, 1914, and the post-war fiscal years ended Mar. 31, 1922 and 1924-1928. ("000" omitted).

IMPORTS FOR CONSUMPTION.

Main Groups.	1914.	1922.	1924.	1925.	1926.	1927.	1928.
Values as Declared. (In thousands of dollars).	000 $	000 $	000 $	000 $	000 $	000 $	000 $
Agricultural and Vegetable Products	97,618	172,666	186,469	173,586	203,417	213,098	238,185
Animals and their Products	41,093	46,646	45,027	41,492	49,186	53,214	65,796
Fibres and Textiles	109,154	139,997	173,796	165,441	184,762	183,584	186 996
Wood and Paper	37,397	35,791	40,977	38,185	40,403	47,962	51,751
Iron and its Products	143,865	110,211	173,474	134,684	181,197	229,430	259,574
Non-Ferrous Metals	35,574	29,773	43,433	41,112	47,693	52,748	60,190
Non-Metallic Minerals	85,289	137,604	155,899	131,013	139,034	156,785	153,049
Chemicals and Allied Products	17,073	24,630	26,088	24,760	28,404	31,845	33,572
Miscellaneous	52,131	50,486	48,204	46,660	53,233	62,227	59,849
Total	619,194	747,804	893,367	796,933	927,329	1,030,892	1,108,956
On the Basis of 1914 Average Values. (In thousands of dollars).							
Agricultural and Vegetable Products	97,618	121,445	128,384	131,129	143,725	163,557	176,147
Animals and their Products	41,093	46,723	53,437	48,154	52,772	63,713	63,792
Fibres and Textiles	109,154	82,785	97,358	93,240	109,209	125,705	127,307
Wood and Paper	37,397	20,566	23,577	24,067	25,076	27,433	31,346
Iron and its Products	143,865	76,805	140,504	112,405	168,258	227,499	285,065
Non-Ferrous Metals	35,574	28,058	41,960	41,415	45,292	47,094	56,319
Non-Metallic Minerals	85,289	81,882	101,148	93,926	99,798	113,349	124,529
Chemicals and Allied Products	17,073	12,766	17,145	17,954	20,449	22,310	24,158
Miscellaneous	52,131	34,098	34,380	35,008	40,465	50,792	50,696
Total	619,194	505,128	637,893	597,298	705,044	841,452	939,359
Index Numbers of Declared Values. (1914=100).							
Agricultural and Vegetable Products	100·0	176·8	191·0	177·7	208·3	218·3	244·0
Animals and their Products	100·0	113·5	109·5	100·9	119·8	129·5	160·1
Fibres and Textiles	100·0	128·2	159·2	151·5	169·2	168·2	171·3
Wood and Paper	100·0	95·7	109·5	102·0	108·0	128·3	138·4
Iron and its Products	100·0	76·7	120·5	93·7	126·0	159·5	180·4
Non-Ferrous Metals	100·0	83·7	122·0	115·5	134·1	148·3	169·2
Non-Metallic Minerals	100·0	161·5	182·7	153·7	163·1	183·8	179·4
Chemicals and Allied Products	100·0	144·3	152·8	145·0	166·4	186·5	196·9
Miscellaneous	100·0	96·9	92·5	89·5	102·1	119·4	114·8
Total	100·0	120·7	144·2	128·8	149·8	166·5	180·0
Index Numbers of Trade as Revalued at 1914 Average Values. (1914=100).							
Agricultural and Vegetable Products	100·0	124·4	132·3	135·0	147·2	167·5	180·4
Animals and their Products	100·0	113·6	129·9	117·1	128·4	155·0	155·2
Fibres and Textiles	100·0	75·8	89·2	85·4	100·1	115·2	116·6
Wood and Paper	100·0	55·0	63·1	64·4	67·1	73·3	83·8
Iron and its Products	100·0	53·4	97·8	78·1	117·0	158·1	198·1
Non-Ferrous Metals	100·0	78·9	117·9	116·4	127·2	132·4	158·3
Non-Metallic Minerals	100·0	96·0	118·8	110·1	116·9	132·9	146·0
Chemicals and Allied Products	100·0	74·8	100·3	105·1	119·7	130·7	141·5
Miscellaneous	100·0	65·4	66·0	67·2	77·7	97·4	97·2
Total	100·0	81·6	103·1	96·7	113·9	135·9	151·7

35.—Comparison of the Value and Volume of the External Trade of Canada, by Main Groups, for the pre-war fiscal year ended Mar. 31, 1914, and the post-war fiscal years ended Mar. 31, 1922 and 1924-1928—concluded. ("000" omitted).

EXPORTS OF CANADIAN PRODUCE.

Main Groups.	1914.	1922.	1924.	1925.	1926.	1927.	1928.
Values as Declared. (In thousands of dollars).	000 $	000 $	000 $	000 $	000 $	000 $	000 $
Agricultural and Vegetable Products	201,190	317,579	430,932	443,299	606,059	574,994	555,111
Animals and their Products	76,591	135,799	140,423	163,031	190,976	167,292	165,845
Fibres and Textiles	1,934	4,586	8,055	9,711	8,940	7,666	10,904
Wood and Paper	63,202	179,926	273,355	253,610	278,675	284,120	284,543
Iron and its Products	15,483	28,312	66,976	57,406	74,735	74,285	62,754
Non-Ferrous Metals	53,304	27,886	65,911	90,371	97,476	80,639	90,841
Non-Metallic Minerals	9,264	22,617	26,776	20,729	24,569	28,510	25,281
Chemicals and Allied Products	4,890	9,506	15,560	16,210	17,498	16,575	17,893
Miscellaneous	5,731	14,030	17,363	14,700	16,428	18,077	15,036
Total	431,589	740,241	1,045,351	1,069,067	1,315,356	1,252,158	1,228,208
On the Basis of 1914 Average Values. (In thousands of dollars).							
Agricultural and Vegetable Products	201,190	226,892	371,386	315,741	400,257	395,410	395,351
Animals and their Products	76,591	97,149	99,408	116,877	122,540	112,765	111,532
Fibres and Textiles	1,934	3,441	5,911	5,787	5,445	5,904	8,932
Wood and Paper	63,202	91,257	151,477	146,049	163,740	172,453	176,846
Iron and its Products	15,483	24,197	72,153	59,242	81,322	75,457	53,936
Non-Ferrous Metals	53,304	28,361	63,974	82,254	84,505	68,876	81,465
Non-Metallic Minerals	9,264	10,777	13,462	15,300	14,225	17,309	14,567
Chemicals and Allied Products	4,890	6,244	10,357	11,163	14,141	14,353	16,223
Miscellaneous	5,731	9,228	13,324	10,528	11,041	12,514	10,598
Total	431,589	497,546	801,452	762,941	897,216	875,041	869,450
Index Numbers of Declared Values. (1914=100).							
Agricultural and Vegetable Products	100·0	157·7	214·1	220·1	301·2	285·8	275·9
Animals and their Products	100·0	177·3	183·4	213·0	249·3	218·4	216·5
Fibres and Textiles	100·0	237·1	416·2	502·0	462·0	396·4	563·8
Wood and Paper	100·0	284·8	432·6	401·5	441·0	449·5	450·2
Iron and its Products	100·0	182·9	432·4	370·6	482·6	479·8	405·3
Non-Ferrous Metals	100·0	52·3	123·5	169·4	182·6	151·3	170·4
Non-Metallic Minerals	100·0	244·1	288·9	225·0	265·1	307·8	272·8
Chemicals and Allied Products	100·0	194·4	318·1	331·7	357·9	339·0	365·9
Miscellaneous	100·0	244·8	303·1	256·5	286·7	315·4	262·4
Total	100·0	171·4	242·3	247·8	304·8	290·1	284·5
Index Numbers of Trade as Revalued at 1914 Average Values. (1914=100).							
Agricultural and Vegetable Products	100·0	112·7	184·5	156·8	198·9	196·5	196·5
Animals and their Products	100·0	126·8	129·7	152·6	160·0	147·2	145·6
Fibres and Textiles	100·0	178·0	305·6	299·2	281·5	305·3	461·8
Wood and Paper	100·0	144·3	239·6	231·0	259·1	272·9	279·8
Iron and its Products	100·0	156·3	465·7	382·7	525·2	487·4	348·4
Non-Ferrous Metals	100·0	53·2	119·9	154·3	158·5	129·2	152·8
Non-Metallic Minerals	100·0	116·3	145·3	166·2	153·5	186·8	157·2
Chemicals and Allied Products	100·0	127·6	211·8	228·4	289·1	293·5	331·8
Miscellaneous	100·0	161·0	232·6	183·8	192·6	218·4	184·9
Total	100·0	115·2	185·6	176·8	207·9	202·7	201·5

Section 4.—The Tourist Trade of Canada.[1]

Tourist Expenditures in Canada.—In recent years the tourist trade has become an important source of revenue in certain sections of the Dominion, materially affecting the balance of trade. It represents the economic disposition of national assets in which Canada is particularly rich, namely, its picturesque scenery, its invigorating climate, its opportunities for hunting, fishing and boating, as well as for winter sports—for the exploitation of which a considerable capital expenditure has been made on hotel accommodation, improved highways and other attractions. The expenditure of travellers coming to Canada from other countries on business has the same effect so far as its influence on the balance of trade is concerned. Indeed, in so far as commodities are sold to tourists travelling in the Dominion, our exportable surplus of such commodities is reduced.

It is impossible to obtain a direct record of expenditures of this kind. Moreover, even a rough estimate of the total is extremely difficult to make, visitors to Canada being of all classes, engaging in widely different activities or forms of recreation, remaining for varying periods, with expenditures undoubtedly ranging from very small to very large amounts.

The tourists who enter Canada may be divided into three classes:—(a) those coming in *via* ocean ports; (b) those entering from the United States in automobiles; (c) those entering from the United States by rail or steamer. In 1927 these classes are estimated to have expended in Canada $11,071,000, $161,418,000 and $70,265,000 respectively, or a grand total of $242,754,000.

The Department of National Revenue records the number of tourists entering Canada in automobiles from the United States through each of the ports of entry along the border. Estimating the expenditure by provinces of these tourists according to the provinces in which they entered gives the following provincial distribution of their expenditure in 1927:—Maritime Provinces $5,178,000; Quebec $59,918,000; Ontario $83,517,000; Manitoba $1,068,000; Saskatchewan $1,210,000; Alberta $486,000; and British Columbia $10,041,000.

Expenditures of Canadian Tourists Abroad.—Canadian tourists visiting other countries travel in the main to the British Isles and other European countries on visits home, or as sight-seers. Again, many of them, especially elderly or delicate persons, go south to avoid the Canadian winter. These tourists may be classified in the same three classes as those entering Canada. The first class leaving Canada by ocean ports is estimated to have spent $20,485,000 abroad in 1927, while those visiting the United States by automobile expended an estimated amount of $57,032,000, and those visiting the United States by rail or steamer an additional $26,265,000, or a grand total in 1927 of $103,782,000.

[1]Abridged from studies of "The Tourist Trade in Canada, 1920-1926" and "1927", published by the Bureau of Statistics and obtainable on application. These studies contain a full explanation of the methods used in making the estimates.

Summary.—In the years 1920 to 1927 the total expenditures of tourists from other countries in Canada, as compared with the expenditures of Canadian tourists in other countries, are estimated as follows:—

Years.	Estimated expenditure of tourists from other countries in Canada.	Estimated expenditure of Canadian tourists in other countries.	Estimated excess of expenditures of tourists from other countries.
	$	$	$
1920	83,734,000	–	–
1921	86,394,000	–	–
1922	91,686,000	46,040,000	45,646,000
1923	130,977,000	50,735,000	80,242,000
1924	148,942,000	58,884,000	90,058,000
1925	173,289,000	67,395,000	105,894,000
1926	190,463,000	90,043,000	100,420,000
1927	242,754,000	103,782,000	138,972,000

It will be noticed that while there has been a steady increase in the amount spent by tourists from other countries in Canada, there has also been an increase in the amount spent by Canadians in other countries. The "favourable" balance accruing to Canada from tourist trade has increased greatly since the war. The statistics demonstrate how valuable an asset to Canada is her tourist trade, constituting an "invisible" export which is surpassed in value by wheat alone among the 70 leading commodities exported from Canada in the fiscal year 1927-28. If the "invisible" import of expenditures of Canadian tourists in other countries is deducted, the balance represents an item still exceeded in value only by the exports of wheat. The further increase of this item in the trade balance depends not only on additional numbers of tourists from other countries, but also on the extent to which Canadians "see Canada first" when they decide to travel.

Section 5.—Balance of International Payments, 1920-26.

In recent years much attention has been devoted by economists to the consideration of the balance of international payments, as distinguished from the balance of commodities imported and exported. The balance of international payments is much the wider term, including, besides the balance of commodities imported and exported, such items as tourist expenditures, dealt with in the preceding section, receipts and payments of interest, receipts and payments in freight charges, in remittances of immigrants and emigrants, in charitable and missionary contributions, etc., and as a supplementary item, evening up accounts, the borrowings and lendings of capital. Many of these items can be only approximately estimated, especially for a country like Canada, lying along a land frontier of some 4,000 miles with the United States, with business relationships and family relationships so closely knit together that it is quite impossible to give any close estimate of the totality of transactions between the two countries for lack of information on such points as the bequests by the citizens of one country to residents of the other and the losses through bankruptcies.

Nevertheless, it has been considered well worth while to make as close an estimate as possible of the balance of the international payments of the Dominion, and the figures for the years 1920 to 1926 are presented for the first time in Table 36. It is expected that with greater experience the technique may be improved, and the margin of error reduced to the minimum. The figures now given, approximate as they are, serve to show the great improvement in the financial position of Canada since 1920.

In 1920 the Dominion's commodity balance of trade was "unfavourable" to the extent of about $24 millions, but each subsequent year has shown a "favourable" balance of trade in commodities. When the totality of transactions in 1920 is taken into account as far as possible, the excess on the import side of our account was $268 millions, while in 1921 and 1922 the excesses on the same side were $137 millions and $68 millions respectively. (A chief reason for the "adverse" balance in these years was that in them we were being repaid amounts advanced to the United Kingdom during the war, there being a net withdrawal from the United Kingdom of $104 millions in 1920, $128 millions in 1921 and $84 millions in 1922.)

In 1923 there was a change, with a surplus of $45 millions shown on the export side, in spite of further repayments of $52 millions by the United Kingdom. In 1924 the surplus, as shown in the table, increased to $108 millions and in 1925 to $277 millions, while in 1926 it fell to $191 millions. In these years Canadian insurance companies were purchasing large amounts of foreign securities, Canadians were making additional further direct investments, principally in South America and the United States, and we were buying back from abroad our own securities or purchasing foreign securities, principally on the New York stock exchange. In addition, the Canadian banks increased very largely the sum of money they had abroad on call.

These exports were the result of abundant funds accumulating in the Dominion owing to three causes. In the first place there had come into the country during the war some $1,250 millions through the purchase of our commodities at high prices; this was seeking an investment outlet. In the second place, the large investment of American capital in the Dominion from 1914 to 1920 was now increasing the nation's output. In the third place, successive large harvests were a foundation of prosperity. These factors, combined, caused an unprecedented accumulation of savings which were used by financial institutions and individuals not only to finance domestic capital needs, but also to avail themselves of opportunities for profitable investment abroad. Thus after 1923 we had on balance an export of capital to our credit, though at the same time other countries, particularly the United States, continued to invest large sums in the Dominion.

For the years 1925 and 1926 a direct estimate of net capital movement has been made as shown in the last line of the balance sheet. It will be observed that the direct and indirect results do not agree, there being a difference due to errors and omissions of about $100 millions in each year. It is impossible to say which amount is nearer the truth, but it is probable that the correct figure lies between the two. The results arrived at by both methods indicate a large export of capital in 1925 and a smaller export in 1926. As the technique of collecting these statistics is improved, the discrepancies between the results obtained from the application of the direct and the indirect methods will be reduced.

36.—Estimated Balance of International Payments, 1920 to 1926. ("000" omitted).

Items.	1920.			1921.		
	Exports, Visible and Invisible.	Imports, Visible and Invisible.	Balance.	Exports, Visible and Invisible.	Imports, Visible and Invisible.	Balance.
	$	$	$	$	$	$
Commodity Trade—						
Recorded merchandise exports and imports	1,302,805	1,363,421	–	816,694	806,108	–
Exports and imports of gold coin and bullion and subsidiary coin	45,706	18,030	–	41,035	5,396	–
Unrecorded imports of ships	–	–	–	–	3,670	–
Deduction for settlers' effects shown elsewhere and miscellaneous items	11,702	20,690	–	9,006	16,906	–
Total	1,336,809	1,360,761	−23,952	848,723	798,268	+50,455
Freight payments and receipts	103,002	110,251	−7,249	97,138	97,913	−775
Tourists' expenditures	85,000	45,000	+40,000	85,000	45,000	+40,000
Interest payments and receipts	44,965	252,244	−207,279	46,050	257,902	−211,852
Immigrants' remittances	7,523	19,211	−11,688	5,807	16,100	−10,293
Expenditures of governments	9,667	50,615	−40,948	11,591	11,427	+164
Charitable and missionary contributions	666	2,431	−1,765	2,401	2,449	−48
Insurance transactions	4,817	19,370	−14,553	4,140	10,641	−6,501
Advertising	1,211	–	+1,211	1,814	–	+1,814
Motion picture royalties	–	2,000	−2,000	–	2,000	−2,000
Capital of immigrants and emigrants	17,559	17,196	+363	12,291	10,390	+1,901
Grand Total	**1,611,219**	**1,879,079**	**−267,860**	**1,114,955**	**1,252,090**	**−137,135**

Items.	1922.			1923.		
	Exports, Visible and Invisible.	Imports, Visible and Invisible.	Balance.	Exports, Visible and Invisible.	Imports, Visible and Invisible.	Balance.
	$	$	$	$	$	$
Commodity Trade—						
Recorded merchandise exports and imports	898,178	762,409	–	1,028,529	903,031	–
Exports and imports of gold coin and bullion and subsidiary coin	26,496	75,144	–	76,748	9,367	–
Unrecorded imports of ships	–	–	–	–	353	–
Deduction for settlers' effects shown elsewhere and miscellaneous items	10,755	14,867	–	12,965	14,677	–
Total	913,919	822,686	+91,233	1,092,312	898,074	+194,238
Freight payments and receipts	101,876	84,243	+17,633	113,945	110,531	+3,414
Tourists' expenditures	91,680	46,040	+45,640	130,977	50,735	+80,242
Interest payments and receipts	41,134	247,875	−206,741	38,492	253,433	−214,941
Immigrants' remittances	8,118	16,228	−8,110	12,378	17,785	−5,407
Expenditures of governments	11,488	10,248	+1,240	11,435	10,106	+1,329
Charitable and missionary contributions	930	2,174	−1,244	2,466	2,055	+411
Insurance transactions	6,469	9,919	−3,450	8,120	9,941	−1,821
Advertising	2,046	–	+2,046	2,172	–	+2,172
Motion picture royalties	–	2,500	−2,500	–	3,000	−3,000
Capital of immigrants and emigrants	8,909	12,643	−3,734	10,385	22,082	−11,697
Grand Total	**1,186,575**	**1,254,556**	**−67,981**	**1,422,682**	**1,377,742**	**+44,940**

36.—Estimated Balance of International Payments, 1920 to 1926—concluded.
("000" omitted).

Items.	1924.			1925.			1926.		
	Exports, Visible and Invisible.	Imports, Visible and Invisible.	Balance.	Exports, Visible and Invisible.	Imports, Visible and Invisible.	Balance.	Exports, Visible and Invisible.	Imports, Visible and Invisible.	Balance.
	$	$	$	$	$	$	$	$	$
Commodity Trade—									
Recorded merchandise exports and imports	1,070,612	808,145	–	1,283,099	890,193	–	1,283,939	1,008,342	–
Exports and imports of gold coin and bullion and subsidiary coin	8,860	29,270	–	40,172	50,509	–	79,563	47,126	–
Unrecorded imports of ships	–	228	–	–	1,938	–	–	1,000	–
Deductions for settlers' effects shown elsewhere and miscellaneous items	10,534	15,154	–	11,737	16,396	–	11,864	16,873	–
Total	1,068,938	822,489	+246,449	1,311,534	926,244	+385,290	1,351,638	1,039,595	+312,043
Freight payments and receipts	98,875	91,147	+ 7,728	102,951	96,213	+ 6,738	111,094	102,526	+ 8,568
Tourists' expenditures	148,942	58,884	+ 90,058	173,289	67,395	+105,894	190,463	90,043	+100,420
Interest payments and receipts	41,376	255,330	–213,954	51,159	258,970	–207,811	66,396	280,419	–214,023
Immigrants' remittances	13,845	17,871	– 4,026	15,190	18,684	– 3,494	15,550	20,509	– 4,959
Expenditures of governments	11,694	11,314	+ 380	11,917	10,935	+ 982	11,948	10,863	+ 1,085
Charitable and missionary contributions	1,409	2,053	– 644	726	1,891	– 1,165	814	1,878	– 1,064
Insurance transactions	10,529	14,126	– 3,597	15,661	18,597	– 2,936	15,342	22,198	– 6,856
Advertising	2,861	–	+ 2,861	2,639	–	+ 2,639	3,143	–	+ 3,143
Motion picture royalties	–	3,500	– 3,500	–	3,500	– 3,500	–	3,500	– 3,500
Capital of immigrants and emigrants	8,696	22,581	– 13,885	7,425	12,884	– 5,459	9,636	13,396	– 3,760
Grand Total	**1,407,165**	**1,299,295**	**+107,870**	**1,692,491**	**1,415,313**	**+277,178**	**1,776,024**	**1,584,927**	**+191,097**
Net Capital Movement (Direct Estimate)						+176,741			+ 85,315
Difference due to errors and omissions						100,437			105,782

CHAPTER XVII.—INTERNAL TRADE.

This treatment of trade within the Dominion commences with a general statement on interprovincial trade. This is followed by statistics of the grain trade and of the marketing of live stock and animal products. Statistics of cold storage facilities and of commodities in cold storage are next in order. In the latter part of the chapter will be found statistics relating to various administrative services connected with trade, including the payment of bounties, patents, copyrights and trade marks, weights and measures, electricity and gas inspection. The treatment of internal trade has been somewhat curtailed in the present edition of the Year Book in order to find room at the end of the chapter for important special statistics in the shape of a *résumé* of the results of the Census of Wholesale and Retail Trading Establishments of 1924—the first endeavour to secure such statistics in Canada and one of the first in the world.

Section 1.—Interprovincial Trade.

Canada may be divided into the following five economic regions, each deriving its specific character from the predominant occupations of its people:—

1. *The Eastern Fishing, Lumbering and Mining Region,* comprising the river valley and the gulf of the St. Lawrence, together with the Atlantic coast; in other words, the Maritime Provinces almost as a whole, the northern part of the province of Quebec (excluding the former district of Ungava), and a portion of northern Ontario.

2. *The Eastern Agricultural and Industrial Region,* comprising the cultivated portions of the Maritime Provinces and of the provinces of Quebec and Ontario. In the latter provinces the cultivated areas extend along the north bank of the St. Lawrence, and along the valleys of its tributaries within the Canadian borders.

3. *The Central Agricultural Region,* extending from the Red River valley to the Rocky mountains and from the Canadian-United States boundary to about 56° N. lat.

4. *The Western Fishing, Mining and Lumbering Region,* comprising the western portion of the province of Alberta, the whole of British Columbia and the southern portion of the Yukon Territory.

5. *The Northern Fishing and Hunting Region,* extending from the regions of permanent settlement northwards to the Arctic Circle and from the coast of Labrador to the Pacific and to the Alaskan boundary. This vast region is sparsely inhabited by indigenous nomadic tribes engaged in fishing and hunting for their own support, for exchange with the fur-trading companies and with individual whalers and traders who visit some parts of the region.

Great differences are apparent between the products of these various regions; even the fisheries and lumber products of the east are quite distinct from those of British Columbia. The needs of the people throughout the country are met to a great extent by the exchange of the products of one region for those of another.

Internal trade in Canada had its basis many years before Confederation in the exchange of the furs and lumber products of Quebec and Ontario for the fisheries and mineral products of the Maritimes. It was also thought at the time of Confederation that the coal fields of Nova Scotia would furnish sufficient fuel for the needs of all the eastern part of the Dominion. Later, the manufactures of Ontario and Quebec found markets from one end of the Dominion to the other, bringing back in exchange the farm, mineral and other products required by large urban communities and produced for exchange principally in western and northern regions. A further stimulus to the trade between east and west over the barren areas north of lake Superior may result from the recently increased production of the Alberta coal fields.

Thus, while many of the smaller communities and areas, like the primitive agriculturist, produce only for their own needs and are economically independent, the principle of comparative advantage is seen in the increased trade between the economic regions of the Dominion, a trade which is principally carried on over the railways of the country, but also largely over its waterways. A comparatively new development is the inauguration of sea transport between Eastern Canada and British Columbia *via* the Panama Canal. (See pp. 687-8.)

A monthly traffic report of the railways of Canada is published by the Transportation Branch of the Dominion Bureau of Statistics, showing, for each province, and for the Dominion as a whole, the total *revenue* freight traffic of all railways, (not the "on company service" freight), divided into 70 classes of commodities. The data also show the quantity of each class that originated and terminated in each province. The reports are of use in computing the imports and exports of each province for each of the 70 classes of commodities. For example, if the total tonnage terminating in Alberta during 1927, as shown in Table **1**, is deducted from the tonnage carried, the remainder of 5,468,601 tons represents the net exports from Alberta for the year 1927. The comparative figure for 1926 was 4,938,372 tons. These statistics show rail traffic only, a limitation which should be borne in mind in connection with the trade of provinces favoured with facilities for water transportation.

The total revenue freight traffic movement on the steam railways of Canada fluctuates to a certain extent with the yield of the crops and with activity in the mining and construction industries involving heavy movements of low grade freight. Nevertheless, there is apparent in the figures of recent years a general increase of traffic, the total freight carried in 1927 being 107,557,957 tons as compared with 107,003,864 tons in 1926, 96,239,379 tons in 1925, 93,650,916 tons in 1924, 103,757,559 tons in 1923, 88,854,800 tons in 1922 and 83,814,436 tons in 1921.

Statements similar to that in Table **1** may be compiled for any of the 70 commodities for which statistics are collected, showing the interprovincial trade by rail in these commodities. For details see "Summary of Monthly Traffic Report of the Railways of Canada, 1927", obtainable from the Dominion Bureau of Statistics.

1.—Railway Revenue Freight Traffic Movement in Canada and its Provinces, in tons, for the calendar years 1926 and 1927.

Provinces.	Originating in Canada or specified province.		Received from foreign connections.		Total freight carried.	
	1926.	1927.	1926.	1927.	1926.	1927.
	tons.	tons.	tons.	tons.	tons.	tons.
Prince Edward Island	159,073	211,974	–	–	159,073	211,974
Nova Scotia	6,756,522	7,479,574	62,451	82,222	6,818,973	7,561,796
New Brunswick	2,362,902	2,352,081	461,275	602,497	2,824,177	2,954,578
Quebec	13,375,297	12,389,378	4,877,023	4,419,567	18,252,320	16,808,945
Ontario	21,935,766	21,936,087	26,812,034	26,836,755	48,747,800	48,772,842
Manitoba	5,853,115	5,687,243	339,969	354,820	6,193,084	6,042,063
Saskatchewan	7,858,992	7,976,146	262,673	316,292	8,121,665	8,292,438
Alberta	8,739,912	9,500,986	336,070	217,758	9,075,982	9,718,744
British Columbia	6,294,858	6,664,173	515,932	530,404	6,810,790	7,194,577
Canada	**73,336,437**	**74,197,642**	**33,667,427**	**33,360,315**	**107,003,864**	**107,557,957**

Provinces.	Terminating in Canada or specified province.		Delivered to foreign connections.		Total freight terminating.	
	1926.	1927.	1926.	1927.	1926.	1927.
	tons.	tons.	tons.	tons.	tons.	tons.
Prince Edward Island	202,692	221,249	–	23,299	202,692	244,548
Nova Scotia	6,078,931	6,737,664	335,175	402,701	6,414,106	7,140,365
New Brunswick	1,721,670	1,730,796	1,755,039	2,187,872	3,476,709	3,918,668
Quebec	13,868,234	13,362,929	7,646,433	7,561,969	21,514,667	20,924,898
Ontario	35,808,318	32,463,537	17,917,152	21,725,306	53,725,468	54,188,843
Manitoba	4,785,694	5,301,722	259,499	262,137	5,045,193	5,563,859
Saskatchewan	3,911,011	4,134,005	550,624	534,925	4,461,635	4,668,930
Alberta	4,137,610	4,250,143	1,218	1,420	4,138,828	4,251,563
British Columbia	5,509,513	5,141,941	1,934,194	2,711,055	7,443,707	7,852,996
Canada	**76,023,671**	**73,343,986**	**30,399,334**	**35,410,684**	**106,423,005**	**108,754,670**

Section 2.—Grain Trade Statistics.

The Canada Year Book 1922-23 contained on pages 581 to 583 a historical summary of the more important points respecting the shipment, inspection and sale of Canadian grain under the Canada Grain Act. (See p. 1017 of the 1925 Year Book for an outline of the new Grain Act.)

Movement of Canadian Wheat, Crop Year 1926-1927.[1]—A *résumé* of the Canadian wheat movement naturally begins with a description of the crop of the western inspection division. The wheat crop of 1926 marketed in the western division during the crop year from Aug. 1, 1926 to July 31, 1927, amounted to 382·1 million bushels. Other acquisitions, including a carry-over of 22·3 million bushels from the previous crop year, brought the stock of the western division to a total for the year of 404·7 million bushels (See Table 2 and the accompanying map for particulars). As for distribution, out of the 299·4 million bushels which were commercially disposed of, the shipments to the eastern division of 113·3 million bushels and the direct export to Great Britain of 142·7 million bushels were the chief items. The direct exports to the United States were 7·3 million bushels and to other countries 18·6 million bushels. The total shipments from the western

[1] For further information see the "Report on the Grain Trade of Canada", issued annually by the Internal Trade Branch of the Dominion Bureau of Statistics.

division were thus 281·9 million bushels. The wheat used by the milling companies for the manufacture of flour amounted to about 17·5 million bushels, of which 12·1 million bushels were ground into flour for domestic consumption. The all-rail movement eastward from the western division, including shipments to the Ogilvie Flour Mills Co. at Fort William for grindings, was 13·7 million bushels. Lake shipments from Fort William and Port Arthur were 229·4 million bushels, 99·6 million bushels going to Canadian ports and 129·5 million to United States ports. The shipments to Canadian ports represent a decrease of nearly 15 p.c. and to American ports a decrease of 2 p.c. from 1925-26. The principal Canadian lake ports were Goderich, with receipts of 14·3 million bushels by water, Port McNicoll, with receipts of 12·4 million bushels by water, and Port Colborne, with total receipts of 47·4 million bushels, a decrease of 5·9 million bushels from the receipts during the previous crop year. Buffalo was of chief importance among the United States lake ports in the handling of Canadian wheat, with receipts by water from Port Arthur and Fort William of 121·4 million bushels. The export of wheat through Vancouver was 34·3 million bushels, as compared with 53·0 million in the previous crop year, and 5·6 million bushels were exported through Prince Rupert. The seed requirements were estimated at 37·6 million bushels, and the stocks at the end of the crop year were 35·5 million bushels.

The eastern division received during the crop year not only the eastern crop, estimated at 25·1 million bushels, but also shipments from the West aggregating 113·3 million bushels. The quantity on hand at the beginning of the crop year was 12·5 million bushels, making, with a comparatively small importation from the United States, a total stock entering the eastern division of 150·9 million bushels. The distribution included 12·4 million bushels carried over in store into the following year, 50·7 million bushels exported from the St. Lawrence ports, and 16·3 million bushels shipped through the winter port of Saint John. In addition, 14·8 million bushels were cleared for export to the United Kingdom and other countries via the United States Atlantic ports. The chief of these ports concerned with the movement of Canadian grain from both divisions were New York, with shipments of 66·9 million bushels, Philadelphia, with 16·8 million, and Baltimore with 11·8 million.

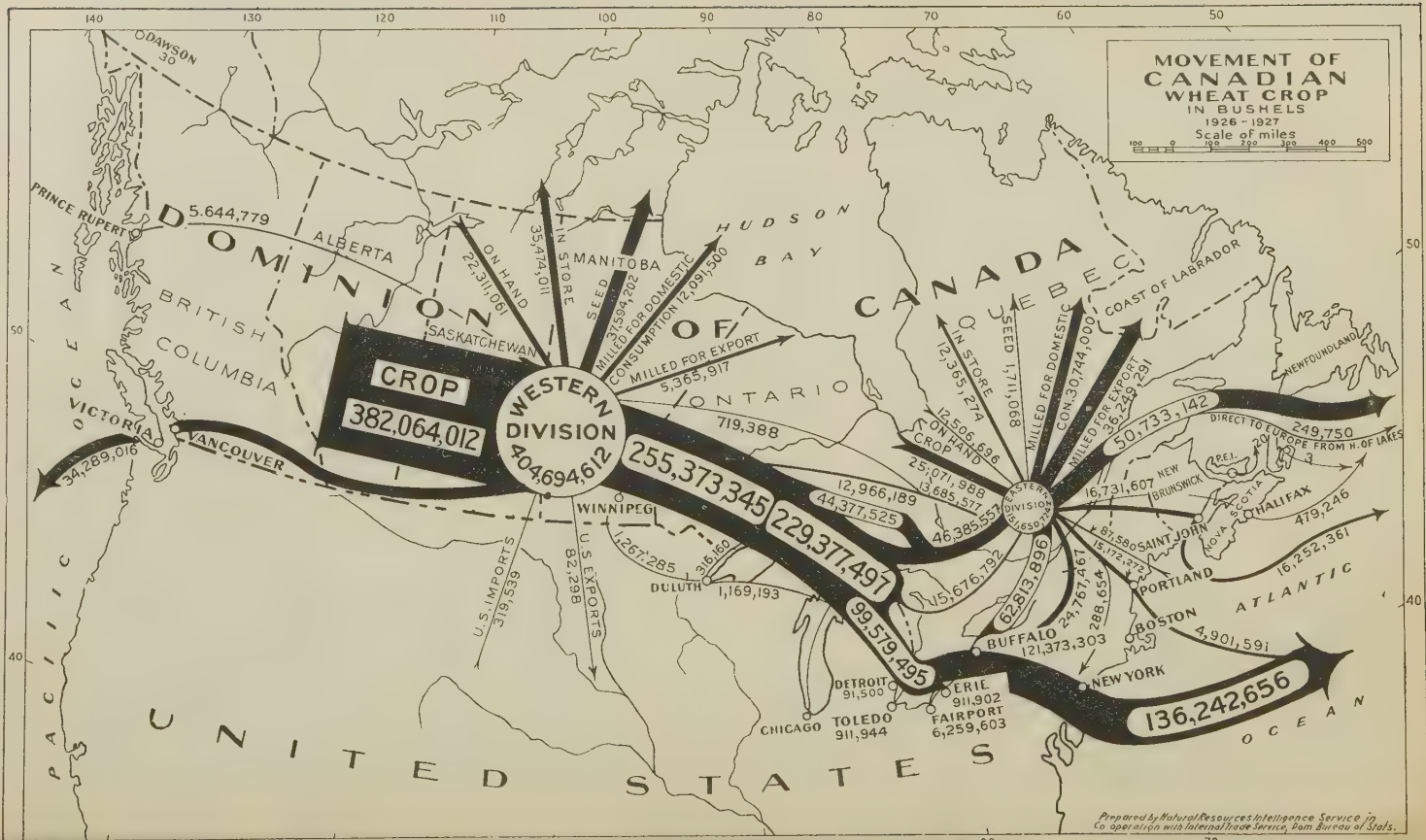
Total exports from Canada to the United States for consumption amounted to 7·6 million bushels, to the United Kingdom 185·3 million bushels, to other countries 58·3 million bushels; 132·2 million bushels were shipped *via* Canadian ports and 111·5 million bushels were shipped *via* United States ports. Total exports of wheat from Canada during the crop year amounted to 251·3.

Table 3 shows for the license years 1927 and 1928 the number of railway stations at which elevators are placed, the number of elevators and their total storage capacity, the figures being given by provinces for each class of elevator with a summary showing the total of all elevators for each province. Tables 4 and 5 give respectively detailed statistics of the inspection of grain for the crop year 1927 and summary statistics for 1921-27, and Tables 6 and 7 show the shipments of grain by vessel and rail for 1926 and 1927.

Tables 8 and 9 deal with the Canadian grain handled in recent years at public elevators in the east.

2.—Summary of the Distribution of Grain in Canada during the crop year ended July 31, 1927.

Items.	Wheat.	Oats.	Barley.	Flax.	Rye.
	bush.	bush.	bush.	bush.	bush.
1. On hand, August 1, 1926—					
In farmers' hands	3,987,300	34,069,000	3,034,700	23,000	135,800
In public elevators in the East	9,329,851	4,483,257	1,366,835	–	70,131
In country elevators, Western Div'n.	1,324,542	976,685	357,285	67,383	101,881
In interior elevators, Western Div'n.	53,820	142,800	33,951	7,884	6,504
In Vancouver elevators	161,061	41,725	9,177	–	–
In public and private terminals, Western Division	12,096,614	2,340,972	1,743,495	2,404,105	470,140
In interior, private and manufacturing elevators, Western Division	2,485,320	994,023	412,339	29,257	5,339
In flour mills	3,873,989	1,586,406	41,303	–	4,441
In transit	1,505,260	1,121,100	1,102,622	70,427	180,432
Total	34,817,757	45,755,968	8,101,707	2,602,056	974,668
2. Crop, 1926	407,136,000	383,416,000	99,987,100	5,994,700	12,178,900
3. Shipped in—					
From U.S.A. and other countries	407,119	2,077,505	29,056	538,849	30,046
4. Total annual stock (sum of 1, 2 and 3)	442,360,876	431,249,473	108,117,863	9,135,605	13,183,614
5. Shipped out—					
To U.S.A.	7,624,566	547,835	3,840	3,277,633	4,960
To United Kingdom *via* Canadian and U.S.A. ports	185,345,710	2,792,779	26,332,677	3	5,739,013
To other countries *via* Canadian and U.S.A. ports	58,295,512	3,336,363	12,458,652	–	2,557,218
Total	251,265,788	6,676,977	38,795,169	3,277,636	8,301,191
6. Milled consumption	42,835,500	8,164,097	851,200	2,250,688	29,492
Milled export	41,615,208	1,970,476	–	–	2,053
7. Total disposed of commercially (sum of 5 and 6)	335,716,496	16,811,550	39,646,369	5,528,324	8,332,736
8. Used for seed	39,305,270	33,099,908	7,011,426	237,926	1,114,967
9. In store, July 31, 1927—					
In farmers' hands	4,263,700	17,152,000	2,213,500	9,500	51,200
In public elevators in the East	9,456,442	1,557,483	477,253	59,955	111,044
In country elevators, Western Div'n.	1,514,870	550,832	170,206	36,993	44,853
In interior terminals, Western Div'n.	431,653	137,283	19,699	8,581	5,185
In Vancouver elevators	469,261	29,776	4,495	–	–
In Prince Rupert elevators	2,951	–	–	–	–
In public and private terminals, Western Division	22,610,900	1,277,764	1,282,306	1,735,393	998,266
In interior, private and manufacturing elevators, Western Division	2,593,219	645,454	397,020	59,669	4,320
In flour mills	4,200,747	1,005,319	36,601	–	–
In transit	2,295,542	482,963	279,337	48,673	49,325
Total	47,839,285	22,838,874	4,880,417	1,958,764	1,264,193
10. Total accounted for (sum of 7, 8 and 9)	422,861,051	72,750,332	51,538,212	7,725,014	10,711,896
11. Loss in cleaning	12,294,300	161,036	877,220	453,810	256,815
12. Grain not merchantable	19,117,000	50,067,000	7,235,100	404,700	528,500
13. Balance, merchantable grain fed on farms or otherwise consumed in and moved out of Canada through other channels	(-)11,911,475	308,271,105	48,467,331	552,081	1,686,403
14. Total (sum of 10 to 13)	442,360,876	431,249,473	108,117,863	9,135,605	13,183,614
15. Amount inspected	336,845,045	29,294,517	47,831,555	4,703,650	16,513,908
16. Per cent of crop inspected	82·74	7·64	47·83	78·46	–
17. Per cent of commercial grain inspected (line 15 of 10)	79·66	40·27	92·81	60·89	–
18. Commercial grain from season's crop (9 and 7-1-3)	348,330,905	–	36,396,023	4,346,183	8,592,215
19. Per cent of crop commercial grain (line 18 of line 2)	85·56	–	36·40	72·50	70·55
20. Value of crop	$445,180,000	$184,108,000	$51,927,000	$9,613,000	$9,384,600


MOVEMENT OF CANADIAN WHEAT CROP IN BUSHELS 1926 - 1927
Scale of miles
DOMINION OF CANADA
PACIFIC OCEAN
ATLANTIC OCEAN
UNITED STATES
DAWSON
PRINCE RUPERT
5,644,779
ALBERTA
SASKATCHEWAN
MANITOBA
HUDSON BAY
ONTARIO
QUEBEC
COAST OF LABRADOR
NEWFOUNDLAND
BRITISH COLUMBIA
VICTORIA
VANCOUVER
34,289,016
CROP
382,064,012
WESTERN DIVISION
404,694,612
ON HAND
22,311,061
IN STORE
35,474,011
SEED
37,594,202
MILLED FOR DOMESTIC CONSUMPTION
12,091,500
MILLED FOR EXPORT
5,365,917
719,388
255,373,345
229,377,491
99,579,495
WINNIPEG
DULUTH
1,267,285
316,160
1,169,193
U.S. IMPORTS
319,539
U.S. EXPORTS
82,298
CHICAGO
DETROIT
91,500
TOLEDO
911,944
ERIE
911,902
FAIRPORT
6,259,603
BUFFALO
121,373,303
NEW YORK
136,242,656
IN STORE
12,365,274
ON HAND
12,506,696
CROP
25,071,988
3,685,517
SEED
1,711,068
MILLED FOR DOMESTIC CON.
30,744,000
MILLED FOR EXPORT
36,239,291
EASTERN DIVISION
15,650,742
12,966,189
44,377,525
46,385,557
5,676,792
62,813,896
24,767,461
288,654
50,733,142
DIRECT TO EUROPE FROM H. OF LAKES
249,750
P.E.I.
200
3
16,731,607
NEW BRUNSWICK
NOVA SCOTIA
HALIFAX
479,246
87,580
SAINT JOHN
15,172,274
PORTLAND
16,252,361
BOSTON
4,901,591
Prepared by Natural Resources Intelligence Service in Co operation with Internal Trade Service, Dom Bureau of Stats.

3.—Number and Storage Capacity of Canadian Grain Elevators in the license years 1927 and 1928.

NOTE.—The average capacity of railway cars for the carriage of grain is for wheat 1,325, oats 1,950, barley 1,485, flaxseed 1,140, and rye 1,295 bushels. Detailed statistics of elevators for the years 1901 to 1918 are given in the 1921 Year Book, pp. 507-509, and the figures for 1919 to 1924 will be found in the 1924 Year Book, pp. 549-550. For 1925 and 1926 see p. 616 of the 1927-28 Year Book.

Elevators, Provinces and Divisions.	1927.			1928.		
	Stations.[1]	Elevators.	Capacity.	Stations[1].	Elevators.	Capacity.
	No.	No.	bush.	No.	No.	bush.
WESTERN DIVISION.						
Country Elevators—						
Manitoba	380	671	20,603,800	382	690	21,661,300
Saskatchewan	929	2,688	84,997,400	949	2,786	87,806,900
Alberta	460	1,078	40,983,000	489	1,216	45,570,000
British Columbia	1	1	15,000	2	2	39,000
Ontario	1	1	40,000	1	1	40,000
Total Country Elevators	1,771	4,439	146,639,200	1,823	4,695	155,117,200
Manufacturing Elevators—						
Manitoba	2 (1)	4	1,342,000	2	4	1,342,000
Saskatchewan	1	1	20,000	1 (2)	2	28,000
Alberta	1 (1)	3	730,000	1 (2)	3	720,000
British Columbia	–	–	–	2	3	70,000
Ontario	1	1	185,000	1	1	185,000
Total Manufacturing Elevators	5	9	2,277,000	7	13	2,345,000
Public Terminal Elevators—						
Manitoba	2	2	2,000,000	–	–	–
Saskatchewan	(2)	2	7,000,000	(2)	2	7,000,000
Alberta	(2)	2	5,000,000	(2)	2	5,000,000
British Columbia	(1)	3	5,850,000	(1)	1	2,100,000
Ontario	(2)	7	34,675,000	(2)	5	24,925,000
Total Public Terminal Elevators	2	16	54,525,000	–	10	39,025,000
Private Elevators—						
Manitoba	(3)	10	1,985,000	2 (4)	14	4,055,000
Saskatchewan	(3)	3	1,447,000	1 (3)	4	2,510,000
Alberta	1 (3)	16	3,055,000	1 (4)	18	3,410,000
British Columbia	3	11	2,430,000	1 (3)	12	7,395,000
Ontario	1 (3)	29	31,150,000	2 (4)	30	49,365,000
Total Private Elevators	5	69	40,067,000	7	78	66,735,000
Total—Western Division	1,783	4,533	243,508,200	1,837	4,796	263,222,200
EASTERN DIVISION.						
Public Elevators—						
Ontario	10	13	22,300,000	11	15	28,600,000
Quebec	2	7	15,310,000	2	7	15,310,000
New Brunswick	2	3	2,200,000	1	3	2,200,000
Nova Scotia	1	2	1,500,000	1	2	1,500,000
Total—Eastern Division	15	25	41,310,000	15	27	47,610,000
Grand Total for Canada	**1,798**	**4,558**	**284,818,200**	**1,852**	**4,823**	**310,832,200**
SUMMARY BY PROVINCES.						
Nova Scotia	1	2	1,500,000	1	2	1,500,000
New Brunswick	2	3	2,200,000	1	3	2,200,000
Quebec	2	7	15,310,000	2	7	15,310,000
Ontario	14	51	88,350,000	15	52	103,115,000
Manitoba	383	687	25,930,800	386	708	27,058,300
Saskatchewan	930	2,694	93,464,400	951	2,794	97,344,900
Alberta	462	1,099	49,768,000	491	1,239	54,700,000
British Columbia	4	15	8,295,000	5	18	9,604,000

[1] The figures in parentheses are not included in the totals.

4.—Grain inspected in Canada during the crop year ended July 31, 1927.

Grades.	Cars Inspected.	Per cent per Grade.	Quantity Inspected.		Total.
			Western Division.	Eastern Division.	
	No.	p.c.	bush.	bush.	bush.
Wheat, Spring—					
Man. Hard No. 1	85	·03	112,625	–	112,625
Northern—					
No. 1 Northern	23,332	9·20	30,914,900	–	30,914,900
No. 2 "	44,808	17·66	59,370,600	–	59,370,600
No. 3 "	20,375	8·03	26,996,875	–	26,996,875
No. 4 "	8,080	3·19	10,706,000	–	10,706,000
No. 5 "	3,485	1·37	4,617,625	–	4,617,625
No. 6 "	2,347	·93	3,109,775	–	3,109,775
Rejected	441	·17	584,325	–	584,325
Sprouted	9,687	3·82	12,835,275	–	12,835,275
Smutty	324	·13	429,300	–	429,300
No Grade	128,917	50·83	170,815,025	–	170,815,025
Condemned	14		18,550	–	18,550
Feed	866		1,147,450	–	1,147,450
No. 2	3		3,975	–	3,975
No. 1 Kota	41	·50	54,325	–	54,325
No. 2 "	48		63,600	–	63,600
No. 3 "	17		22,525	–	22,525
No. 4 "	1		1,325	–	1,325
Rejected Kota	6		7,950	–	7,950
Smutty Kota	3		3,975	–	3,975
No Grade Kota	245		324,625	–	324,625
No. 1 Hard White Spring	7		9,275	–	9,275
No. 2 " "	62		82,150	–	82,150
No. 3 " "	90		119,250	–	119,250
No. 4 " "	1		1,325	–	1,325
Rejected " "	8	·14	10,600	–	10,600
No grade " "	99		131,175	–	131,175
Smutty " "	3		3,975	–	3,975
Other wheat mixed with foreign grain	6		84,800	–	84,800
Commercial Grades—					
No. 1	–	–	–	272,832	272,832
Durum—					
No. 1 C.W. (Amber Durum)	23		30,475	–	30,475
No. 2 "	477		632,025	–	632,025
No. 3 "	746		988,450	–	988,450
No. 4 "	48		63,600	–	63,600
No. 5 "	9		11,925	–	11,925
Rejected. "	145	3·92	192,125	–	192,125
No grade (Amber Durum)	8,369		11,088,925	–	11,088,925
Smutty	124		164,300	–	164,300
No. 1 C.W. Red Durum	2		2,650	–	2,650
No. 2 "	6		7,950	–	7,950
No. 3 "	8		10,600	–	10,600
No. 4 "	1	·07	1,325	–	1,325
No grade "	70		92,750	–	92,750
Rejected "	2		2,650	–	2,650
Other Durum mixed	92		122,900	–	121,900
Total Spring Wheat	**253,581**	–	**335,994,825**	**272,832**	**336,267,657**
Winter Wheat, Alberta, Red, Total	20	·01	26,500	–	26,500
Mixed Winter, Total	–	–	–	278,466	278,466
White Winter, Total	–	–	–	10,970	10,970
Red Winter, Total	–	–	–	261,452	261,452
Total Winter Wheat	**20**	–	**25,500**	**550,888**	**577,388**
Grand Total, Wheat	**253,601**	**100·00**	**336,021,325**	**823,720**	**336,845,045**
Oats—					
Ex. No. 1 C.W.	1		1,950	–	1,950
No. 1 C.W.	1	8·90	1,950	–	1,950
No. 2 C.W.	505		984,750	–	984,750
No. 3 C.W.	748		1,458,600	–	1,458,600
Ex. No. 1 Feed	419	2·98	817,050	–	817,050
No. 1 Feed	938	6·66	1,829,100	–	1,829,100
No. 2 Feed	453	3·22	883,350	–	883,350
Rejected	88	·62	171,600	–	171,600
No Grade	10,928	77·59	21,309,600	–	21,309,600
Condemned	3	·02	5,850	–	5,850
No. 1	–	–	–	–	–
No. 2	–	–	–	13,490	13,490

4.—Grain inspected in Canada during the crop year ended July 31, 1927—concluded.

Grades.	Cars Inspected.	Per cent per Grade.	Quantity Inspected.		Total.
			Western Division.	Eastern Division.	
Oats—concluded.	No.	p.c.	bush.	bush.	bush.
No. 3	–	–	–	270,890	270,890
No. 4	–	–	–	308,086	308,086
Rejected	–	–	–	38,600	38,600
No Grade	–	–	–	37,000	37,000
Mixed Elevator Feed	8	·01	8	1,162,651	1,162,651
Total Oats	**14,084**	**100·00**	**27,463,800**	**1,830,717**	**29,294,517**
Total Buckwheat	32	–	32,000	226,586	258,586
Barley—					
No. 2	–	–	–	–	–
No. 3 extra	2	7·26	2,970	–	2,970
No. 3	1,981		2,941,785	–	2,941,785
No. 4	1,047	3·84	1,554,795	–	1,554,795
Feed	492	1·80	730,620	–	730,620
Rejected	592	2·17	879,120	–	879,120
No Grade	23,152	84·81	34,380,690	–	34,380,690
Other	32	·12	47,520	–	47,720
No. 2	–	–	–	5,250	5,250
No. 3 Extra	–	–	–	13,966	13,966
No. 3	–	–	–	30,340	30,340
No. 4	–	–	–	96,914	90,914
No Grade	–	–	–	4,750	4,550
Rejected	–	–	–	4,450	4,450
Maltings	–	–	–	7,144,385	7,144,385
Total Barley	**27,298**	**100·00**	**40,537,500**	**7,294,055**	**47,831,555**
Rye—					
No. 1 C.W.	341	5·62	441,600	–	441,600
No. 2 C.W.	1,161	19·16	1,503,495	–	1,503,495
No. 3 C.W.	341	5·62	441,595	–	441,595
Rejected	147	2·43	190,365	–	190,365
No Grade	4,067	67·10	5,266,765	–	5,266,765
Other	4	·07	5,180	–	5,180
No. 2	–	–	–	8,652,928	8,652,928
No. 3	–	–	–	8,730	8,730
Rejected	–	–	–	3,250	3,250
No Grade	–	–	–	–	–
Total Rye	**6,061**	**100·00**	**7,849,000**	**8,664,908**	**16,513,908**
Flaxseed—					
No. 1 N.C.W.	1,227	29·74	1,398,790	–	1,398,790
No. 2 C.W.	114	2·76	129,960	–	129,960
No. 3 C.W.	58	1·41	66,120	–	66,120
No Grade	2,687	65·12	3,063,180	–	3,063,180
Rejected	32	·78	36,480	–	36,480
Condemned	8	·19	9,120	–	9,120
Total Flaxseed	**4,126**	**100·00**	**4,703,650**	–	**4,703,650**
Peas	–	–	–	10,560	10,560
Corn	3	–	3,500	–	3,500
Speltz	1	–	1,000	–	1,000
Screenings	55	–	55,000	–	55,000
Mixed grains	642	–	930,900	–	930,900
Grand Total, All Grains	**395,903**	–	**417,597,675**	**18,850,546**	**436,448,221**

UNITED STATES GRAIN INSPECTED.

Kinds.	Bushels.
Wheat	33,814,603
Corn	540,883
Barley	574,183
Rye	13,544,083
Oats	1,898,491
Total	**50,372,243**

5.—Quantities of Canadian Grain inspected during the crop years ended Aug. 31, 1922 and 1923, and July 31, 1924-1927.

NOTE.—1924—11 months ended July 31. 1925—crop year ended July 31. In 1924 the crop year was changed from Sept. 1 to Aug. 31 to Aug. 1 to July 31.

Grains.	1921-22.			1922-23.		
	Western Division.	Eastern Division.	Total.	Western Division.	Eastern Division.	Total.
	bush.	bush.	bush.	bush.	bush.	bush.
Spring wheat	231,569,325	199,881	231,769,206	297,194,300	150,159	297,344,459
Winter wheat	36,975	653,629	690,604	62,400	1,287,465	1,349,865
Total wheat	231,606,300	853,510	232,459,810	297,256,700	1,437,624	298,694,324
Oats	62,412,000	117,723	62,529,723	48,944,000	1,825,148	50,769,148
Barley	14,000,000	285,457	14,285,457	18,804,775	286,360	19,091,135
Flax	2,784,100	–	2,784,100	3,631,500	–	3,631,500
Rye	5,754,075	149,348	5,903,423	12,051,450	97,263	12,148,713
Corn	5,000	6,350	11,350	16,000	11,051	27,051
Buckwheat	–	302,098	302,098	12,000	509,168	521,168
Peas	–	9,781	9,781	–	15,063	15,063
Speltz	1,000	–	1,000	4,000	–	4,000
Screenings	224,000	–	224,000	198,000	–	198,000
Mixed grains	–	–	–	–	–	–
Total	**316,786,475**	**1,724,267**	**318,510,742**	**380,918,425**	**4,181,677**	**385,100,102**

Grains.	1923-24.			1924-25.		
	bush.	bush.	bush.	bush.	bush.	bush.
Spring wheat	389,025,756	2,142	389,027,898	214,368,670	465,627	214,834,297
Winter wheat	33,232	260,157	293,389	21,040	1,292,637	1,313,677
Total wheat	389,058,988	262,299	389,321,287	214,389,710	1,758,264	216,147,974
Oats	82,987,326	458,991	83,446,317	49,952,025	1,972,333	51,924,358
Barley	19,781,480	112,089	19,893,569	31,899,420	718,776	32,618,196
Flax	5,363,482	–	5,363,482	8,347,925	–	8,347,925
Rye	7,010,966	15,594	7,026,560	5,565,440	171,115	5,736,555
Corn	7,000	19,239	26,239	2,000	16,291	18,291
Buckwheat	9,000	101,634	110,634	50,000	1,093,121	1,143,121
Peas	–	29,839	29,839	–	24,328	24,328
Speltz	2,000	–	2,000	8,000	–	8,000
Screenings	342,000	–	342,000	213,000	–	213,000
Mixed grains	–	–	–	432,000	–	432,000
Total	**504,562,212**	**999,685**	**505,561,927**	**310,859,520**	**5,754,228**	**316,613,748**

Grains.	1925-26.			1926-27.		
	bush.	bush.	bush.	bush.	bush.	bush.
Spring wheat	325,509,780	2,302,172	354,811,952	335,994,825	272,832	336,267,657
Winter wheat	25,460	877,184	902,644	26,500	550,888	577,388
Total wheat	352,535,240	3,179,356	355,714,596	336,021,325	823,720	336,845,045
Oats	53,693,705	2,864,925	56,558,630	27,463,800	1,830,717	29,294,517
Barley	41,991,000	731,082	42,722,082	40,537,500	7,294,055	47,831,555
Flax	5 865,200	–	5,865,200	4,703,650	–	4,703,650
Rye	5,471,530	136,294	5,607,824	7,849,000	8,664,908	16,513,908
Corn	5,000	5,387	10,387	3,500	–	3,500
Buckwheat	29,000	301,290	330,290	32,000	226,586	258,586
Peas	–	92,283	92,283	–	10,560	10,560
Speltz	6,000	–	6,000	1,000	–	1,000
Screenings	89,000	–	89,000	55,000	–	55,000
Mixed grains	1,068,000	–	1,068,000	930,900	–	930,900
Total	**460,753,675**	**7,309,407**	**468,064,292**	**417,597,675**	**18,850,546**	**436,448,221**

6.—Shipments of Grain by Vessels from Fort William and Port Arthur for the navigation seasons 1926 and 1927.

Kinds of Grain.	1926.			1927.		
	To Canadian ports.	To American ports.	Total shipments.	To Canadian ports .	To American ports.	Total shipments.
	bush.	bush.	bush.	bush.	bush.	bush.
Wheat	108,430,663	119,225,278	227,905,691[1]	101,440,315	132,513,120	234 149 085[2]
Oats	21,981,584	859,231	22,840,815	6,655,646	514,451	7,170,097
Barley	16,425,834	17,428,466	33,854,300	10,506,459	14,347,065	24,920,376[2]
Flaxseed	934,332	2,924,513	3,858,845	1,589,651	2,163,863	3,753,514
Rye	1,395,462	5,475,367	6,870,829	6,314,398	4,181,244	10,496,642
Total	**149,167,875**	**145,912,855**	**295,330,480[1]**	**126,506,469**	**153,719,743**	**280,488,714[2]**
Mixed grains lb.	–	–	–	–	–	–
Screenings ton	56,625	64,282	120,907	44,169	58,413	103,252[2]

[1]Includes 249,750 bush. to Europe direct. [2]Includes 2 vessels wrecked carrying 195,650 bush. wheat' 66,852 bush. barley and 670 tons screenings.

7.—Shipments of Grain by Vessels and All-rail route from Fort William and Port Arthur for the crop years ended July 31, 1926 and 1927.

Kinds of Grain.	1926.			1927.		
	Lake.	Rail.	Total.	Lake.	Rail.	Total.
	bush.	bush.	bush.	bush.	bush.	bush.
Wheat—						
No. 1 Hard	60,709	–	60,709	64,982	1,467	66,449
No. 1 Northern	74,893,973	1,209,814	76,103,787	34,033,528	92,633	34,126,161
No. 2 Northern	73,959,638	458,304	74,417,942	60,838,871	863,473	61,702,344
No. 3 Northern	48,475,468	752,947	49,228,415	34,239,226	1,927,848	36,167,074
No. 4	7,094,209	525,806	7,620,015	12,342,315	1,320,197	13,662,512
Other Grades	44,353,384	4,233,333	48,586,717	87,640,531	7,382,007	95,022,538
Total Wheat	**248,837,381**	**7,180,204**	**256,017,585**	**229,159,453**	**11,587,625**	**240,747,078**
Oats	33,231,199	2,227,507	35,458,706	10,054,799	2,593,811	12,648,610
Barley	34,685,086	1,198,323	35,883,409	31,317,456	5,043,490	36,360,946
Flaxseed	3,831,486	97,510	3,928,996	4,431,094	93,206	4,524,300
Rye	5,322,700	22,271	5,344,971	7,264,557	65,019	7,329,576
Mixed grains	865,778	114,083	979,861	288,166	86,906	375,072
Total Grain	**326,773,630**	**10,839,898**	**337,613,528**	**282,515,525**	**19,470,057**	**301,985,582**

8.—Canadian Grain handled at Public Elevators in the East, by crop years ended Aug. 31, 1921-1923, and July 31, 1924-1927.

Years.	Wheat.	Oats.	Barley.	Flaxseed.	Rye.	Total Grain.	Mixed Grains.
	bush.	bush.	bush.	bush.	bush.	bush.	bush.
Receipts—							
1920-1921	99,222,288	56,920,476	15,122,141	933,160	1,322,315	173,520,380	445,796
1921-1922	120,870,258	50,187,467	16,365,929	1,170,635	2,270,964	190,865,253	–
1922-1923	195,912,085	32,097,720	14,790,852	501,979	3,418,010	246,720,646	–
1923-1924	223,719,604	49,154,956	15,562,501	653,807	3,377,790	292,468,658	–
1924-1925	153,390,076	54,899,163	15,991,065	1,506,975	6,229,093	232,025,372	–
1925-1926	215,549,103	62,779,106	32,688,079	1,287,532	2,541,379	314,845,199	–
1926-1927	198,210,174	24,058,721	32,791,627	1,638,413	4,078,293	261,227,228	–
Shipments—							
1920-1921	98,073,242	52,455,177	14,707,981	870,279	1,298,940	167,405,619	–
1921-1922	119,186,498	49,098,234	16,273,586	1,156,145	2,262,807	187,977,270	–
1922-1923	194,426,412	30,625,863	13,832,147	489,529	2,191,775	241,565,726	–
1923-1924	216,711,059	44,512,029	15,297,057	604,501	3,237,745	280,352,391	–
1924-1925	148,380,135	52,213,123	15,333,397	1,449,328	6,059,319	223,435,302	–
1925-1926	205,741,857	57,670,028	31,083,209	1,257,545	2,491,492	298,244,131	–
1926-1927	189,398,463	22,852,198	32,277,421	1,577,210	3,975,862	250,082,400	–

9.—Canadian Grain handled in Public Elevators in the East, by Classes of Ports, during the crop year ended July 31, 1927.

Ports.	Wheat.	Oats.	Barley.	Flaxseed.	Rye.	Total.
	bush.	bush.	bush.	bush	bush.	bush.
Georgian Bay Ports—						
On hand	4,197,780	589,855	261,189	–	–	5,048,824
Receipts—Water	44,377,525	4,529,502	3,770,158	745,488	846,100	54,268,773
Rail	11,283	1,650	2,350	–	–	15,283
Total	48,586,588	5,121,007	4,033,697	745,488	846,100	59,332,880
Shipments—Rail	46,385,557	4,693,111	3,936,238	685,531	846,099	56,546,536
In Store	2,201,000	427,896	97,441	59,955	–	2,786,292
Lower Lake Ports—						
On hand	836,086	1,133,456	322,113	–	1,670	2,293,325
Receipts—Rail	315,454	160,348	–	–	9,996	485,798
Water	48,033,133	5,471,928	8,777,692	310,483	1,202,479	63,795,715
Total	49,184,673	6,765,732	9,099,805	310,483	1,214,145	66,574,838
Shipments—Rail	10,082,946	1,638,395	40,642	–	10,380	11,772,363
Water	37,578,359	4,965,994	8,932,127	310,483	1,203,765	52,990,728
In Store	1,523,365	161,335	127,036	–	–	1,811,736
St. Lawrence Ports—						
On hand	4,773,370	3,385,760	1,021,566	29,984	48,215	9,258,895
Receipts—Rail	15,676,792	1,763,934	1,144,535	1,246[1]	139,615	18,726,122
Water	62,813,896	7,453,465	14,259,158	551,212	1,024,055	86,101,786
Total	83,264,058	12,603,159	16,425,259	581,196[2]	1,211,885	114,086,803[2]
Shipments—Rail	6,810,544	7,355,246	784,461	582,442[2]	170,302	15,702,995[2]
Water	71,367,351	4,180,629	15,351,092	–	939,156	91,838,228
In Store	5,086,147	1,067,270	289,694	–	102,425	6,545,536
Seaboard Ports—						
On hand	–	–	–	–	–	–
Receipts—Rail	17,127,221	18,823	3,232,866	–	806,163	21,185,073
Water	47,634	–	–	–	–	47,634
Total	17,174,855	18,823	3,232,866	–	860,163	21,232,707
Shipments—Water	17,154,355	18,823	3,221,703	–	804,863	21,199,744
Rail	19,351	–	11,158	–	1,297	31,806
In Store	1,156	–	–	–	–	1,156

[1] Buckwheat. [2] Including 1,246 bushels of buckwheat.

Flour-milling in 1926.—The operating flour and grist mills industry in Canada in 1926 numbered 1,291 establishments, with a capital investment of $58,335,813 and a total daily capacity of 118,316 barrels of flour. They were distributed by provinces as shown in Table **10.** Statistics of their employees, value of products, etc., will be found in Table 6 of the chapter on Manufactures on pages 414 and 415 of this volume.

10.—Flour Mills of Canada, with their Equipment and Capacity, 1926.

Provinces.	No. of Flour and Grist Mills.	No. of Chopping Mills.	Total No. of Mills.	Rolls, pairs.	Stones, pairs.	Capacity of Flour Mills in Barrels per day.
Prince Edward Island	13	4	17	50	20	454
Nova Scotia	14	9	23	37	22	485
New Brunswick	13	24	37	90	3	717
Quebec	92	279	371	788	204	21,155
Ontario	199	477	676	2,538	57	62,139
Manitoba	29	7	36	568	7	12,270
Saskatchewan	43	20	63	448	10	8,834
Alberta	35	29	64	534	2	11,609
British Columbia	4	–	4	34	5	653
Canada	**442**	**849**	**1,291**	**5,087**	**330**	**118,316**

Section 3.—Marketing of Live Stock and Animal Products.[1]

The estimated value of farm live stock and poultry in Canada in 1927 was about $852,000,000, or two-thirds of the value of field crops grown during the year. In gross value of product the slaughtering and meat-packing industry, which is dependent chiefly on animal husbandry for its materials, has during recent years been one of the most important single manufacturing industries in Canada.

The Canada Year Book, 1922-23, contained on pages 594 and 595 a historical description of the development and present position of the live stock industry in the Dominion, with statistics of farm animals from the decennial censuses, 1871 to 1921. A summary of this data is given in Table **11.**

11.—Animals on Farms and Animals killed or sold by Farmers in Canada, by census years, 1871-1921.

Years.	Animals on Farms.			Animals killed or sold and wool sold.			
	Cattle.	Sheep.	Swine.	Cattle.	Sheep.	Swine.	Wool.
	No.	No.	No.	No.	No.	No.	Lb.
1871	2,484,655	3,155,509	1,366,083	507,725	1,557,430	1,216,097	11,103,480
1881	3,382,396	3,048,678	1,207,619	657,681	1,496,465	1,302,503	11,300,736
1891	3,997,023	2,563,781	1,733,850	957,737	1,464,172	1,791,104	10,031,970
1901	5,446,944	2,510,568	2,332,902	1,086,353	1,329,141	2,497,636	10,550,769
1911[2]	6,649,982	2,227,916	3,691,235	1,752,792[3]	949,039[3]	2,771,755[3]	6,933,955
1921[2]	8,391,424	3,196,078	3,324,291	1,616,626[3]	1,027,975[3]	1,779,339[3]	11,338,268

[2] Census taken as of June 1, while previous censuses were taken earlier in the year, so that a greater number of young animals is included in 1911 and 1921.

[3] Animals slaughtered on farms were not included. Following figures are comparable with data given for the previous years (the 1911 amounts being partly estimated):—

	Cattle	Sheep.	Swine.
1911	1,915,059	1,097,015	4,282,624
1921	2,095,959	1,217,993	2,972,413

In Table **12** are given statistics showing the index numbers of animals on farms for the years 1918 to 1927, expressed as percentages of the average numbers for the quinquennium 1911-1915.

12.—Index Numbers of Animals on Farms in Canada, calendar years 1918-1927.

(Average number for 1911 to 1915 = 100.)

Years.	Animals on Farms.				
	Horses.	Milch Cows.	Other Cattle.	Sheep.	Swine.
1918	128·0	133·2	176·4	145·6	125·8
1919	130·1	133·6	177·2	163·2	118·5
1920	120·6	132·0	164·5	177·5	103·1
1921	135·2	140·7	175·4	175·3	114·5
1922	129·4	141·0	161·9	155·7	114·8
1923	125·2	137·8	151·5	131·4	129·2
1924	127·3	140·3	155·4	128·1	148·6
1925	126·0	144·2	148·5	131·4	129·8
1926	120·5	144·6	128·3	149·9	127·8
1927	121·4	146·6	143·1	155·6	137·7

Live Stock Marketings, 1927.—The number of cattle sold at live stock yards showed a decrease of 21,282 and the sales of hogs a decrease of 20,978 in 1927 as compared with 1926. Cattle sold numbered 958,872 in 1927, 980,154 in 1926, 967,712 in 1925, 872,932 in 1924, 830,898 in 1923, 862,203 in 1922 and 688,104 in 1921. The total numbers of hogs sold were 1,117,555 in 1927, 1,138,533 in 1926, 1,286,154 in 1925, 1,311,362 in 1924, 1,031,656 in 1923, 835,773 in 1922 and 681,427 in 1921. Sales of calves increased from 341,455 in 1926 to 366,470 in 1927, but sheep sales have fallen from 598,305 head in 1920 to 414,374 in 1925, 425,873 in 1926 and 464,203 in 1927.

[1] For more detailed information on this subject see "Live Stock and Animal Products Statistics", published annually by the Dominion Bureau of Statistics.

Table **13** shows the receipts for sale at the various stock-yards and the disposition of the live stock sold in 1926 and 1927.

13.—Receipts and Disposition of Live Stock at Principal Markets in Canada, calendar years 1926 and 1927.

Markets and Classification.	1926.				1927.			
	Cattle.	Calves.	Hogs.	Sheep and Lambs.	Cattle.	Calves.	Hogs.	Sheep and Lambs.
Toronto—	No.	No.	No.	No.	No.	No.	No.	No.
Receipts (Total)	351,760	107,867	312,100	189,766	345,824	112,817	294,658	221,399
Shipments (Total)	348,737	109,064	313,736	188,199	343,668	113,929	297,733	221,161
1. Can. Packing Houses	223,780	59,935	293,716	145,973	250,418	57,738	277,019	183,799
2. Local Butchers	30,004	20,507	12,282	32,246	29,414	20,381	15,257	31,299
3. Country Points	47,845	3,002	6,503	9,809	43,492	2,439	4,455	5,659
4. Other Stock-yards	1,515	10	198	–	1,931	101	489	–
5. U.S. Exports	4,240	25,610	109	171	14,352	33,270	513	404
6. Overseas Exports	41,353	–	928	–	4,061	–	–	–
Montreal (Pt. St. Charles)—								
Receipts (Total)	43,071	103,558	151,847	142,651	56,994	108,937	159,293	140,222
Shipments (Total)	42,565	102,728	151,900	140,746	56,828	113,553	160,797	145,772
1. Can. Packing Houses	33,353	71,757	127,650	105,504	44,477	75,449	125,269	107,103
2. Local Butchers	7,727	30,168	23,126	27,122	11,462	36,693	34,324	28,906
3. Country Points	530	19	585	2,950	585	61	886	3,347
4. Other Stock-yards	80	493	–	4,286	55	1,265	280	4,396
5. U.S. Exports	27	291	539	884	249	85	38	2,020
6. Overseas Exports	848	–	–	–	–	–	–	–
Montreal (East End)—								
Receipts (Total)	18,033	25,622	34,502	13,675	19,653	33,516	41,705	20,437
Shipments (Total)	17,922	25,896	34,461	14,030	19,732	33,491	41,509	20,379
1. Can. Packing Houses	9,272	6,003	3,457	5,215	9,408	6,945	1,946	5,858
2. Local Butchers	6,981	19,750	30,838	8,595	7,511	26,326	38,788	12,054
3. Country Points	1,527	28	166	105	1,375	101	99	–
4. Other Stock-yards	142	115	–	115	1,415	119	676	2,467
5. U.S. Exports	–	–	–	–	23	–	–	–
6. Overseas Exports	–	–	–	–	–	–	–	–
Winnipeg—								
Receipts (Total)	327,313	58,405	348,809	38,475	323,483	66,539	342,374	42,692
Shipments (Total)	329,100	57,393	348,890	38,598	321,976	66,969	341,755	42,533
1. Can. Packing Houses	184,895	32,531	268,900	29,856	163,037	47,693	265,278	34,185
2. Local Butchers	16,836	13,951	4,174	3,396	2,208	4,996	5,224	1,146
3. Country Points	44,317	4,943	43,442	4,901	55,113	5,627	42,812	6,980
4. Other Stock-yards	37,443	3,164	29,081	442	26,125	3,719	15,459	222
5. U.S. Exports	40,995	2,804	2,458	–	75,113	4,934	12,982	–
6. Overseas Exports	4,614	–	835	–	380	–	–	–
Calgary—								
Receipts (Total)	107,796	22,419	95,939	15,063	97,921	21,426	107,185	14,596
Shipments (Total)	125,956	4,053	95,939	15,063	118,040	559	105,875	14,598
1. Can. Packing Houses	84,747	3,474	74,746	10,570	67,706	419	66,934	10,645
2. Local Butchers	2,732	255	77	118	1,860	20	256	274
3. Country Points	23,790	187	13,603	4,360	27,353	120	2,715	3,679
4. Other Stock-yards	2,119	–	–	–	653	–	472	–
5. U.S. Exports	12,064	137	7,513	15	20,468	–	35,498	–
6. Overseas Exports	504	–	–	–	–	–	–	–
Edmonton—								
Receipts (Total)	94,973	17,553	121,769	11,677	71,466	17,124	105,540	11,710
Shipments (Total)	97,745	19,077	122,147	13,617	70,817	18,930	109,750	12,655
1. Can. Packing Houses	53,660	11,993	62,220	7,267	36,455	9,848	50,646	5,851
2. Local Butchers	2,552	3,555	1,814	3,081	2,558	5,868	3,188	4,569
3. Country Points	22,534	915	24,891	3,174	18,161	1,596	19,358	2,235
4. Other Stock-yards	3,296	171	7,188	95	1,106	–	3,081	–
5. U.S. Exports	11,157	2,443	25,780	–	12,537	1,618	33,477	–
6. Overseas Exports	4,546	–	254	–	–	–	–	–
Prince Albert—								
Receipts (Total)	6,593	987	11,535	636	9,035	1,184	17,755	1,213
Shipments (Total)	6,642	965	11,073	699	9,554	637	17,841	1,135
1. Can. Packing Houses	3,547	653	10,638	510	4,605	483	17,211	837
2. Local Butchers	148	111	23	3	182	67	66	26
3. Country Points	1,326	107	412	36	2,083	63	564	272
4. Other Stock-yards	945	94	–	150	709	24	–	–
5. U.S. Exports	676	–	–	–	1,975	–	–	–
Moose Jaw—								
Receipts (Total)	30,615	5,044	62,032	13,930	34,496	4,927	49,045	11,934
Shipments (Total)	29,406	5,017	60,961	13,547	32,986	4,893	47,653	9,426
1. Can. Packing Houses	20,442	4,265	52,290	6,335	18,414	3,848	40,605	4,177
2. Local Butchers	236	129	64	4	61	60	–	–
3. Country Points	4,323	337	8,122	6,749	4,966	434	6,330	5,245
4. Other Stock-yards	3,839	286	485	459	2,059	171	718	4
5. U.S. Exports	566	–	–	–	7,486	380	–	–

Data concerning the origin and destination of stock handled through live stock yards show that, with regard to the interprovincial movement of live stock, Saskatchewan was the largest shipper of cattle in 1927. This province shipped a total of 204,203 head, 167,595 going to other provinces and 36,608 being for export. Manitoba received 160,665 head from Saskatchewan. Alberta was also a heavy shipper, sending 8,259 head for export and 92,835 to other provinces, a total of 101,094. Manitoba received 35,648 head of the Alberta shipments. Manitoba shipped 166,593 head, 71,355 for export and 95,238 to other provinces. Total receipts of cattle in Manitoba from other provinces amounted to 196,996, while Ontario received 120,141 head.

The number of live stock originating in five provinces of Canada and marketed through stock-yards or by direct shipment to the packers, or for export, is given for the calendar year 1927 in Table **14.** In Table **15** are given the statistics of the grading of animals from five provinces marketed through the stock-yards in 1927.

14.—Live Stock from Several Provinces of Canada, marketed through Stock-yards, Packers, etc., calendar year 1927.

Live Stock.	Maritime Provinces.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	Total.
	No.	No.	No.	No.	No.	No.	No.
Cattle—							
Total to stock-yards	304	40,358	348,312	137,937	198,098	200,029	925,038
Direct to packers	876	1,147	13,162	348	3,462	5,710	24,705
Direct to export	3,089	1,844	31,926	853	5,861	28,055	71,628
Total	**4,269**	**43,349**	**393,400**	**139,138**	**207,421**	**233,794**	**1,021,371**
Calves—							
Total to stock-yards	2,067	86,781	156,703	35,473	33,393	40,600	355,017
Direct to packers	82	5,385	23,906	228	781	6,524	36,906
Direct to export	119	3,402	341,114	–	10	3,676	41,321
Total	**2,268**	**95,568**	**214,723**	**35,701**	**34,184**	**50,800**	**433,244**
Hogs—							
Total to stock-yards	929	90,411	393,960	207,973	199,566	208,994	1,101,833
Direct to packers	18,228	50,276	1,188,870	63,927	82,825	309,134	1,713,260
Direct to export	205	248	59,351	–	242	26,193	86,239
Total	**19,362**	**140,935**	**1,642,181**	**271,900**	**282,633**	**544,321**	**2,901,332**
Sheep—							
Total to stock-yards	16,287	149,067	208,442	28,907	27,088	35,400	465,191
Direct to packers	7,183	6,870	21,779	652	1,308	4,585	42,377
Direct to export	820	3,821	3,210	6	–	421	8,278
Total	**24,290**	**159,758**	**233,431**	**29,565**	**28,396**	**40,406**	**515,846**
Store cattle purchased	315	2,845	81,743	15,403	7,304	34,753	166,410

15.—Grading of the Live Stock from several Provinces of Canada, marketed at the Stock-yards, calendar year 1927.

Grades of Live Stock.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	Total.[1]
	No.	No.	No.	No.	No.	No.
Cattle—						
Steers, 1,200 lb. and up....good	89	18,671	1,509	2,414	4,084	26,774
Steers, 1,000-1,200 lb.....good	1,340	37,706	5,395	7,661	14,694	66,809
Steers, 1,000 lb. up.....common....	1,955	8,826	1,472	1,925	3,661	17,853
Steers, 700-1,000 lb.....good	531	49,046	5,691	5,449	6,886	67,614
common....	3,065	16,955	2,298	2,755	2,940	28,075
Heifers.....good	195	43,146	8,652	12,066	14,047	78,122
fair.....	853	15,249	6,467	10,037	9,302	41,913
common....	2,166	11,884	4,385	5,361	5,893	29,727
Cows.....good	1,574	32,826	11,580	18,939	26,830	91,759
medium....	8,442	49,809	16,639	20,992	16,196	112,129
Bulls.....good	541	4,913	2,449	3,458	2,835	14,206
common....	8,319	11,104	3,301	3,689	2,463	28,889
Canners and cutters	9,173	21,230	11,522	14,151	11,146	67,276
Stockers, under 800 lb.....good	–	7,593	18,423	28,217	25,412	79,645
fair.....	–	6,429	15,394	21,070	16,587	59,480
Feeders, 800-1,100 lb.....good	–	7,249	13,524	25,569	28,295	74,637
fair.....	–	3,682	8,374	11,791	6,059	29,906
Unclassified	2,115	1,994	862	2,554	2,699	10,224
Total	**40,358**	**348,312**	**137,937**	**198,098**	**200,029**	**925,038**
Calves—						
Good veal	1,392	55,106	15,831	15,299	25,740	113,389
Common veal	23,596	91,648	19,642	18,082	14,851	167,975
Grass	61,793	9,949	–	12	9	73,653
Total	**86,781**	**156,703**	**35,473**	**33,393**	**40,600**	**355,017**
Hogs—						
Select bacon	4,318	85,722	24,092	12,590	14,379	141,180
Thick smooth	26,066	201,642	111,543	112,903	144,472	597,033
Heavies	2,296	11,336	10,452	12,826	8,417	45,385
Ex. heavies	418	1,049	3,564	4,236	1,151	10,422
Shop hogs	14,263	29,582	16,178	13,213	3,735	77,139
Lights and feeders	1,777	8,565	29,987	30,124	27,842	98,306
Roughs	134	186	482	853	1,121	2,776
Sows, No. 1	247	1,805	6,665	8,030	3,952	20,736
Sows, No. 2	816	6,875	4,291	3,932	2,558	18,512
Stags	43	525	497	632	303	2,001
Unclassified	40,033	46,673	222	227	1,063	88,343
Total	**90,411**	**393,960**	**207,973**	**199,566**	**208,994**	**1,101,833**
Sheep and Lambs—						
Lambs.....Good handy weight..	54,274	151,299	17,006	15,906	13,451	257,481
Good heavy.....	1,958	5,816	248	294	1,542	9,938
Common.....	37,279	11,071	5,595	3,635	3,570	67,313
Bucks.....	38,145	16,074	1,075	656	227	59,022
Sheep.....Good heavy.....	121	1,203	1,031	2,267	1,157	5,791
Good handy weight...	5,204	16,518	1,785	2,319	4,518	30,701
Common.....	5,117	5,452	2,167	1,423	1,532	16,199
Unclassified.....	6,969	1,009	–	588	9,403	18,746
Total	**149,067**	**208,442**	**28,907**	**27,088**	**35,400**	**465,191**

[1] Includes live stock from the Maritime Provinces marketed through stock-yards as follows:—cattle, 304; calves, 2,067; hogs, 929; sheep 16,287.

Slaughtering and Meat-packing—The tendency to large scale production in this industry is shown in the summary of census records below. The number of establishments has rapidly dropped off while the industry has grown by leaps and bounds. The concentration of the industry into a comparatively small number of

large establishments has resulted in the utilization of by-products and in a marked increase in economy and efficiency of operation. In addition to the principal statistics reported in the decennial censuses from 1871 to 1911, annual figures collected through the Census of Industry for the years 1921 to 1926 are included in Table **16**, whilst live stock slaughtered at Canadian inspected establishments in 1926 and 1927 is shown in Table **17**.

16.—Principal Statistics of the Slaughtering and Meat-packing Industry of Canada, by censal years 1871 to 1926.

Description.		1871.	1881.	1891.	1901.[1]	1911.[1]
Establishments	No.	193	203	527	57	80
Capital invested	$	419,325	1,449,679	2,173,077	5,395,162	15,321,088
Employees	No.	841	852	1,690	2,416	4,214
Salaries and wages	$	145,376	209,483	503,053	1,020,164	2,685,518
Cost of materials	$	2,942,786	3,163,576	5,554,246	19,520,058	40,951,761
Value of products	$	3,799,552	4,084,133	7,125,831	22,217,984	48,527,076

Description.		1921.	1922.	1923.	1924.	1925.	1926.
Establishments	No.	84	83	76	74	74	73
Capital invested	$	58,459,555	56,710,481	53,058,776	56,675,118	54,316,043	55,712,724
Employees	No.	9,711	9,800	9,914	10,046	10,709	10,685
Salaries and wages	$	13,547,778	12,366,896	12,708,253	13,127,504	13,549,545	13,757,638
Cost of materials	$	113,389,835	115,154,525	107,788,344	106,764,011	132,329,355	139,200,096
Value of products	$	153,136,289	143,414,693	138,218,909	133,740,271	163,816,810	167,127,091

[1] Includes only establishments employing five hands and over.

17.—Live Stock slaughtered at Canadian Inspected Establishments, by months, 1926 and 1927.

Months.	1926.			1927.			
	Cattle.[1]	Sheep.	Swine.	Cattle.	Calves.	Sheep.	Swine.
	No.	No.	No.	No.	No.	No.	No.
January	64,226	25,666	232,242	55,849	13,607	29,923	255,469
February	53,402	16,686	199,978	44,958	15,140	20,791	219,752
March	83,706	22,296	216,917	48,805	33,085	20,396	233,925
April	90,630	15,036	203,892	43,438	55,321	17,006	209,671
May	100,093	11,391	203,458	48,947	65,537	13,790	212,835
June	100,021	19,037	182,057	46,972	51,403	21,058	214,616
July	87,244	30,373	164,310	49,405	39,654	33,031	148,586
August	92,541	51,052	164,518	66,070	42,540	59,505	161,474
September	100,090	74,702	189,275	71,374	26,932	89,020	173,696
October	110,746	113,389	216,762	86,955	30,297	137,970	208,308
November	124,499	119,940	263,527	105,736	26,608	132,617	248,367
December	89,320	46,201	254,489	64,848	14,551	42,951	253,643
Total	**1,097,418**	**545,769**	**2,491,425**	**733,357**	**414,675**	**418,057**	**2,540,342**

[1] Includes calves.

Consumption of Animal Products.—The consumption of meats in Canada in 1927 is estimated at 654,543,632 pounds of beef, 775,150,815 pounds of pork and 58,191,717 pounds of mutton and lamb. The per capita consumption of beef on this basis amounts to 68·76 pounds; pork, 81·43 pounds; and mutton and lamb, 6·11 pounds, a total of 156·30 pounds of meats per capita per annum. The corresponding data for other animal products are as follows:—butter, 274,890,136 pounds and 28·88 pounds; cheese, 32,172,125 pounds and 3·38 pounds; eggs, 282,405,692 dozen and 29·67 dozen; and poultry 92,225,019 pounds and 9·69 pounds. Details are given in Table **18**.

18.—Total and per capita Consumption of Meats and Live Stock Products in Canada, calendar years 1923-1927.

Items.	1923.	1924.	1925.	1926.	1927.
BEEF.					
Slaughtered in Canada..... No.	1,850,091	1,863,724	1,921,464	1,903,293	2,002,917
Estimated dressed weight..... lb.	663,027,550	670,940,640	691,727,040	685,185,480	711,035,535
Imports of beef..... "	582,408	309,725	381,563	325,127	249,897
"	663,609,958	671,250,365	692,108,603	685,510,607	711,285,432
Exports of beef..... "	22,832,000	23,207,200	34,627,700	27,233,800	56,741,800
Total consumption..... "	640,777,958	648,043,165	657,480,903	658,276,807	654,543,632
Consumption per capita..... "	70·55	70·24	70·21	70·10	68·76
PORK.					
Slaughtered in Canada.....No.	6,055,957	6,625,185	5,720,372	5,636,211	5,964,971
Estimated dressed weight..... lb.	799,386,324	940,776,270	812,292,824	800,341,962	847,025,882
Imports of pork..... "	44,649,341	21,108,954	16,132,187	16,062,301	10,706,633
"	844,035,665	961,885,224	828,425,011	816,404,263	857,732,515
Exports of pork..... "	103,646,900	128,171,200	149,809,300	109,983,400	82,581,700
Total consumption..... "	740,388,765	833,714,024	678,615,711	706,420,863	775,150,815
Consumption per capita..... "	81·52	90·36	72·47	75·23	81·43
MUTTON AND LAMB.					
Slaughtered in Canada.....No.	1,214,895	1,188,472	1,205,780	1,396,774	1,453,372
Estimated dressed weight..... lb.	78,968,165	47,538,880	48,231,200	55,870,960	58,134,880
Imports of mutton and lamb..... "	1,350,037	1,367,442	1,320,739	1,672,906	1,946,037
"	80,318,202	48,906,322	49,551,939	57,543,866	60,080,917
Exports of mutton and lamb..... "	1,707,000	922,200	2,640,600	1,274,000	1,889,200
Total consumption..... "	78,611,202	47,984,122	46,911,339	56,269,866	58,191,717
Consumption per capita..... "	8·65	5·20	5·01	5·99	6·11
SUMMARY OF ALL MEATS.					
Beef..... lb.	70·55	70·24	70·21	70·10	68·76
Pork..... "	81·52	90·36	72·47	75·23	81·43
Mutton and lamb..... "	8·65	5·20	5·01	5·99	6·11
Total consumption of meat per capita..... "	**160·72**	**165·80**	**147·69**	**151·32**	**156·30**
BUTTER.					
On hand, Jan. 1..... lb.	14,645,599	16,627,979	23,316,255	10,015,826	14,548,427
Production—Creamery..... "	162,834,608	178,893,937	169,494,967	177,209,287	178,438,013[1]
Home-made..... "	100,000,000	100,000,000	100,000,000	95,000,000	95,000,000
Imports..... "	2,738,065	1,173,857	99,748	9,151,882	11,208,819
"	280,218,272	296,695,773	292,910,970	291,376,995	299,195,259
Exports..... "	13,173,711	22,343,939	26,646,535	9,814,013	2,696,000
"	267,044,561	274,351,834	266,264,435	281,562,982	296,499,259
On hand, Dec. 31..... "	16,627,979	22,316,255	10,015,826	14,548,427	21,609,123
Total consumption..... "	250,416,582	251,035,579	256,248,609	267,014,555	274,890,136
Consumption per capita..... "	27·57	27·21	27·36	28·44	28·88

[1] Preliminary figures.

18.—Total and per capita Consumption of Meats and Live Stock Products in Canada, calendar years 1923-1927—concluded.

Items.	1923.	1924.	1925.	1926.	1927.
CHEESE.					
On hand, Jan. 1 ..... lb.	5,178,881	14,356,254	14,569,236	22,410,962	23,302,293
Production—Factory ..... "	151,624,376	149,707,530	177,139,113	171,731,631	138,026,861[1]
Home-made ..... "	500,000	500,000	500,000	500,000	500,000
Imports ..... "	1,899,522	908,920	10,274,338	1,218,626	1,720,797
"	159,202,779	165,472,704	202,482,687	195,861,219	163,549,951
Exports ..... "	116,201,900	121,465,600	150,742,900	134,656,600	110,533,000
"	43,000,879	44,007,104	51,739,787	61,204,619	53,016,951
On hand, Dec. 31 ..... "	14,356,254	14,569,236	22,410,962	23,302,293	20,844,826
Total consumption ..... "	28,644,625	29,437,868	29,328,825	37,902,326	32,172,125
Consumption per capita ..... "	3·15	3·1)	3·13	4·04	3·38
EGGS.					
Production—Farm ..... doz.	202,186,508	212,648,685	224,778,867	237,080,399	253,277,227
Other ..... "	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000
Imports ..... "	6,623,251	5,474,796	3,726,311	4,479,815	4,576,671
"	233,809,759	243,123,481	253,505,178	266,560,214	282,853,898
Exports ..... "	2,900,111	2,716,604	2,466,270	1,776,559	448,206
Total consumption ..... "	230,909,648	240,406,877	251,038,908	264,783,655	282,405,692
Consumption per capita ..... "	25·42	26·06	26·81	28·20	29·67
POULTRY.					
Poultry—On farms ..... No.	45,469,289	47,538,130	48,133,969	49,641,472	50,178,485
Elsewhere ..... "	7,082,000	7,082,000	7,082,000	7,082,000	7,082,000
Total ..... "	52,551,289	54,620,130	55,215,969	56,723,472	57,260,485
Marketings ..... "	13,137,823	13,655,032	13,803,991	16,545,714	16,497,025
Estimated dressed weight ..... lb.	91,199,702	96,934,488	96,718,924	98,377,994	96,782,064
Exports ..... "	5,878,846	6,730,660	7,564,987	8,165,409	4,557,045
Total consumption ..... "	85,320,856	90,203,828	89,153,937	90,212,585	92,225,019
Consumption per capita ..... "	9·39	9·86	9·61	9·61	9·69

[1] Preliminary figures.

Interprovincial and International Trade in Meats.—Ontario was the largest shipper of meats in 1927, moving in all 182,779,413 lb. of meats out of the province. Beef shipments amounted to 66,835,117 lb.; veal 3,003,072 lb.; mutton and lamb 2,130,704 lb.; fresh pork 8,617,065 lb.; cured pork 53,590,652 lb. Manitoba shipped 80,836,270 lb., the principal items being:—beef 34,266,552 lb.; veal 1,602,702 lb.; mutton and lamb 312,492 lb.; fresh pork 5,423,183 lb.; cured pork 8,229,532 lb. Shipments from Quebec totalled 37,083,651 lb., 6,590,333 lb. being beef, 3,885,816 lb. veal, 226,628 lb. mutton and lamb, 1,690,083 lb. fresh pork and 8,650,222 lb. cured pork. Alberta shipments amounted to 19,124,620 lb., beef shipments comprising 3,453,831 lb., veal 237,135 lb., mutton and lamb 45,878 lb., fresh pork 2,795,822 lb., cured pork 4,964,585 lb. Total shipments from other provinces were as follows:—Prince Edward Island 204,789 lb.; Nova Scotia 702,392 lb.; New Brunswick 529,619 lb.; Saskatchewan 6,695,857 lb.; and British Columbia 352,686 lb. Details of these shipments will be found at pp. 54-61 of the "Live

Stock and Animal Products Statistics, 1927", which may be obtained on application to the Dominion Bureau of Statistics.

Export and Import Trade in Live Stock and Live Stock Products.—The exports of live stock and live stock products from the Dominion to the United Kingdom, the United States and all countries, are shown for the four fiscal years ended Mar. 31, 1925-28, in Table **12** of the chapter on External Trade, at pp. 508-515, as well as imports in Table **13** at pp. 534-538. Exports are also available by calendar years and may be found at pp. 86-89 of the report on "Live Stock and Animal Products Statistics, 1927", or at pp. 202-219 of the report on "Trade of Canada (Imports for Consumption and Exports), Calendar Year 1927". Figures of imports of this class by calendar years will be found at pp. 86-89 of the former and at pp. 38-54 of the latter report.

Section 4.—Cold Storage.

Cold Storage Warehouses.—Under the Cold Storage Act, 1907 (6-7 Edw. VII, c. 6), now consolidated as c. 25, R.S.C., 1927, subsidies have been granted by the Dominion Government towards the construction and equipment of cold storage warehouses open to the public, the Act and regulations made thereunder being administered by the Department of Agriculture. Table **19** shows for 1928 the number of cold storage warehouses in Canada, with the refrigerated space. This amounts to 46,544,971 cubic feet, of which 5,628,680 cubic feet apply to warehouses subsidized under the Act, while 40,916,291 cubic feet apply to non-subsidized warehouses.

19.—Cold Storage Warehouses in Canada, by Provinces, 1928.

Provinces.	Subsidized Public Warehouses.				Total Warehouses.	
	Number.	Refrigerated space.	Cost.	Total Subsidy.	Number.	Refrigerated space
		cu. ft.	$	$		cu. ft.
Prince Edward Island	2	213,107	66,970	20,091	7	276,662
Nova Scotia	5	808,715	529,347	158,804	20	1,442,149
New Brunswick	2	781,161	192,577	57,773	24	1,083,216
Quebec	6	314,434	307,787	92,336	90	11,497,146
Ontario	17	1,807,944	719,147	215,744	189	14,940,329
Manitoba	1	27,500	32,000	9,600	50	5,242,374
Saskatchewan	4	437,596	268,707	80,612	48	1,996,417
Alberta	2	351,059	242,000	72,600	30	4,263,418
British Columbia	3	887,164	458,000	137,400	75	5,758,360
Yukon	–	–	–	–	1	44,900
Total	**42**	**5,628,680**	**2,816,535**	**844,960**	**534**	**46,544,971**

Cold Storage Stocks.—Statistics of the stocks of food in the cold storage warehouses of Canada are collected and published monthly by the Internal Trade Branch of the Dominion Bureau of Statistics. A summary of the cold storage data is included in the report on "Live Stock and Animal Products Statistics", published annually. In Table **20** are included statistics by months for 1927 and 1928 of the stocks of food in cold storage and in process of cure, for various important commodities.

20.—Stocks of Food on hand in Cold Storage and in Process of Cure, by Months and Commodities, 1927 and 1928.

NOTE.—Figures in this table are of stocks on hand on the first of each month.

Months.	Eggs.	Butter.	Cheese.	Beef.		
				Fresh.	Cured.	In process of cure.
1927.	doz.	lb.	lb.	lb.	lb.	lb.
January	2,200,475	14,548,427	23,302,293	26,618,199	258,245	261,576
February	1,321,526	9,386,863	17,940,960	25,251,950	285,064	264,604
March	1,211,550	6,928,292	16,189,589	21,599,852	310,054	381,641
April	1,748,212	1,959,192	12,883,782	18,022,678	324,774	323,075
May	5,859,634	1,509,683	10,357,678	14,399,040	362,088	246,223
June	12,347,950	4,137,866	11,213,487	11,547,114	402,068	232,543
July	16,431,373	15,084,755	20,087,568	8,758,603	336,636	264,446
August	17,441,423	28,060,729	30,262,857	8,054,720	397,438	218,057
September	17,171,374	34,481,169	35,827,478	9,055,767	346,218	260,227
October	14,524,757	38,009,502	35,770,603	10,607,297	273,894	187,586
November	12,377,106	35,041,892	29,698,037	15,269,587	156,225	243,451
December	7,444,467	27,674,726	22,908,906	24,255,107	151,250	165,940
1928.						
January	3,647,229	21,609,123	20,844,826	22,495,484	139,408	268,599
February	2,030,845	18,955,244	17,481,842	19,470,047	223,901	242,677
March	1,151,354	12,580,692	15,569,794	15,907,308	120,839	288,655
April	1,199,111	6,834,730	13,135,081	13,707,703	115,484	198,411
May	5,670,635	3,715,033	10,992,271	10,827,107	113,576	150,605
June	13,321,747	3,375,754	9,074,887	8,527,618	152,934	118,965
July	17,709,212	12,235,094	16,653,446	7,733,258	151,528	213,095
August	18,278,434	23,049,578	23,569,072	7,440,434	266,925	133,323
September	18,690,436	29,330,739	27,858,201	7,607,150	298,032	172,943
October	17,675,484	29,386,157	27,806,984	8,943,601	257,929	174,045
November	13,180,845	25,996,343	24,382,728	13,493,030	157,034	246,612
December	8,383,539	17,824,358	19,532,472	19,308,747	354,178	101,902

Months.	Veal.	Pork.			Lard.	Mutton and lamb.	Poultry.
		Fresh.	Cured.	In process of cure.			
1927.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
January	2,947,452	13,193,415	8,298,684	8,738,204	2,798,123	5,627,914	7,794,072
February	2,019,467	20,530,247	7,325,791	10,435,214	3,597,486	5,241,677	7,599,140
March	1,293,061	24,214,912	8,229,935	10,292,739	4,496,386	4,328,787	7,007,929
April	1,029,630	25,344,211	10,126,247	10,962,417	4,515,536	3,473,375	6,529,977
May	987,304	26,893,534	9,418,780	11,366,673	5,041,263	2,448,287	5,391,927
June	1,122,662	24,292,300	10,482,962	11,935,224	5,772,349	1,807,161	4,515,671
July	1,153,127	21,781,423	11,091,330	9,459,030	5,979,494	935,704	3,929,752
August	1,249,668	16,654,930	10,245,194	10,373,542	5,380,725	703,050	2,994,753
September	1,270,756	12,412,641	9,101,069	10,608,068	4,581,070	535,493	2,370,801
October	1,315,499	9,243,311	9,050,300	8,112,733	2,999,525	1,109,012	2,239,214
November	1,700,084	10,118,609	8,232,117	8,064,884	2,354,170	3,726,007	2,401,320
December	2,144,507	12,016,643	8,724,259	7,403,627	2,135,070	6,559,566	3,950,574
1928.							
January	1,710,222	17,416,495	9,859,118	6,802,812	2,275,004	6,317,906	7,944,717
February	1,165,563	22,979,770	10,947,076	7,381,218	3,010,926	5,675,647	7,595,843
March	876,354	26,353,560	11,385,909	8,807,873	3,861,403	4,191,989	7,290,333
April	751,682	29,579,738	16,755,355	7,505,214	3,729,253	3,475,406	6,051,480
May	1,012,884	32,084,537	14,992,726	7,245,647	3,744,207	2,060,115	4,751,502
June	1,099,749	29,876,721	15,727,115	6,633,638	3,940,838	1,126,869	3,654,441
July	1,098,945	27,598,610	15,136,664	7,287,258	4,114,355	750,939	2,798,370
August	1,195,312	19,628,698	13,920,486	6,426,762	5,424,574	530,845	2,055,143
September	1,197,247	14,679,813	11,086,295	5,868,211	4,142,875	633,092	1,438,659
October	1,298,115	11,644,209	10,003,948	7,057,750	3,527,254	1,141,198	1,355,841
November	1,794,693	9,129,150	8,628,441	5,847,544	2,695,889	3,761,030	2,041,502
December	1,971,141	10,109,945	8,855,445	5,840,998	2,007,044	5,761,199	4,670,953

Section 5.—Bounties, Patents, Copyrights and Trade Marks.

Bounties.—The only bounties paid by the Dominion Government in 1927-28 were for the production of hemp and copper bars and rods. Bounties on iron and steel ceased in 1911, on lead in 1918, on zinc in 1921, and on linen yarns in 1923. The total paid for lead bounties from 1899 to 1918 amounted to $1,979,216 for 1,187,169,878 lb. of lead. For crude petroleum the bounty ceased in 1926-27; the total paid from 1905 to 1927 was $3,457,173 on 233,135,217 gallons. (For quantities and bounties paid in each year, see table on p. 635 of the 1927-28 Year Book.) The bounty paid on copper bars and rods began in 1924-25, when it amounted to $14,552, at the rate of 1¼c. per lb. on 1,164,140 lb. copper bars; in 1925-26 it amounted to $14,822 on 1,482,267 lb. copper bars at 1c. per lb.; in 1926-27 to $164,242 on 9,326,360 lb. at 1c. per lb. and on 9,463,826 lb. at ¾c. per lb., in 1927-28 to $79,819 on 6,923,478 lb. at ¾c. per lb. and on 5,578,693 lb. at ½c. per lb. (This bounty was extended to June 30, 1931, at the rate of ½c. per lb., by c. 15 of the Statutes of 1928.) The bounty paid on hemp began in 1927-28, when it amounted to $2,987 on 19,048 lb. hemp at 1½c. per lb. and on 196,508 lb. at 1⅜c. per lb.

The total amount of bounties paid from 1896 to 1928 was $23,284,123; of this amount $16,785,827 was for iron and steel, $1,979,216 for lead, $3,457,173 for crude petroleum, $367,962 for manila fibre, $400,000 for zinc, $17,523 for linen yarns, $273,435 for copper bars and rods, and $2,987 for hemp. The Year Book of 1915, pp. 459-460, gave a description of the bounties that had been payable since 1883, as well as tables showing, for each commodity, the quantities on which bounties were annually paid and the amounts of such bounties for the years 1896 to 1915 inclusive. For details of the bounties on zinc, see p. 635 of the 1927-28 Year Book.

Patents.—Letters patent, which in England have been in the gift of the Crown from the time of the Statute of Monopolies and beyond, are in Canada a purely statutory grant and have been so from the first. The earliest Act is one of Lower Canada, passed in 1824, wherein provision is made for the granting of patent rights to inventors who are British subjects and inhabitants of the province. Upper Canada passed its Act in 1826 and Nova Scotia and New Brunswick passed theirs at later dates. After the Union, a consolidating Act was passed in 1849, applying to both Upper and Lower Canada, and the B.N.A. Act assigned the granting of patents exclusively to the Parliament of Canada. The Dominion Patent Act of 1869 repealed the provincial Acts and has formed the basis of all succeeding Acts.

The Patent Act as it now stands (R.S.C. 1927, c. 150), provides in section 7 that "Any person who has invented any new and useful art, process, machine, manufacture or composition of matter....not known or used by any other person before his invention thereof, and....not in public use or on sale with the consent or allowance of the inventor thereof for more than two years previous to his application for patent therefor in Canada, may....obtain a patent granting to such person an exclusive property in such invention". The exclusive right in the patent has duration for eighteen years. The Patent Act was amended by c. 4 of the Statutes of 1928, in order to bring it into conformity with the terms of the international conference for the protection of industrial property.

The first Canadian patent was issued under the Lower Canada Act of 1824 to Noah Cushing of Quebec; 165 patents were granted under the Acts of Upper and Lower Canada, and under the consolidating and later Acts of the provinces of Canada, 3,160 patents were granted. The growth of invention is shown by the

fact that in 1923 alone 2,021 Canadian patents, a record figure, were issued to Canadians by the Patent Office.

Applications for patents in Canada from inventors in other countries were first received in 1872. In that year the total number of applications for patents made to the Canadian Patent Office, Department of Agriculture, was 752, and the total fees amounted to $18,652. The business of the Office has gradually continued to expand and the number of applications and total fees increased each year without a break from the beginning of the present century until the fiscal year ended Mar. 31, 1913, when 8,681 applications were received and the total fees amounted to $218,125. In the fiscal year ended Mar. 31, 1928, there were 11,845 applications, with fees amounting to $412,146, as compared with 11,406 and $438,690 respectively in 1927. For the fiscal year ended Mar. 31, 1928, the number of patents granted was 9,518, as compared with 10,018 in 1927, a decrease of 500. Of the patents of 1928, 6,287 or 66 p.c. were issued to United States inventors, 1,285 to Canadians and 712 to residents of Great Britain and Ireland, while Germany with 419, France with 197 and Australia with 119, came next in number of inventors to whom patents were issued. Table 21 shows the distribution of the Canadian patentees for the years 1918 to 1928 by province of residence.

21.—Number of Canadian Patentees, by Province of Residence, for the fiscal years ended Mar. 31, 1918-1928.

Provinces.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island	3	–	9	2	4	9	7	2	2	5	3
Nova Scotia	18	21	29	29	22	35	41	26	30	19	24
New Brunswick	14	9	22	33	14	21	14	24	24	21	12
Quebec	220	172	312	331	276	430	312	302	272	320	298
Ontario	398	386	636	708	508	845	673	559	561	499	537
Manitoba	91	66	86	118	75	158	83	66	68	89	71
Saskatchewan	84	76	94	119	101	166	106	101	90	68	100
Alberta	61	75	116	127	96	155	123	95	95	82	88
British Columbia	83	70	147	177	103	202	174	127	150	129	152
Yukon and N.W.T.	1	–	–	1	–	–	–	–	–	–	–
Total	**973**	**875**	**1,451**	**1,645**	**1,199**	**2,021**	**1,533**	**1,302**	**1,292**	**1,232**	**1,285**

It will be seen from the table that the more populous provinces of Ontario and Quebec obtained the largest absolute number of patents, but a calculation of the number of patentees in relation to population shows that, for the fiscal year 1928, the greatest relative inventiveness was displayed in British Columbia. Thus, in this province, in 1928, one patent was granted for every 3,835 persons, the other provinces, as regards the number of persons to each patent granted, being placed in order as follows:—Ontario, 6,010; Alberta, 7,180; Saskatchewan, 8,510; Quebec, 8,880; Manitoba, 9,225; Nova Scotia, 22,780; P.E. Island, 28,800; and New Brunswick, 34,580.

22.—Statistics of Patents applied for, granted, etc., fiscal years ended Mar. 31, 1924-1928.

Items.		1924.	1925.	1926.	1927.	1928.
Applications for patents	No.	10,441	14,834	11,133	11,406	11,845
Patents granted	"	9,000	9,508	11,001	10,018	9,518
Certificates for renewal fees	"	1,793	1,485	1,761	2,204	319
Caveats granted	"	415	392	396	397	370
Assignments	"	5,061	7,519	5,948	6,409	7,011
Fees received, net	$	390,934	474,614	455,211	438,690	412,146

Copyrights.—The first Canadian Copyright Act was passed by the Legislature of Lower Canada on Feb. 25, 1832 (2 William IV, c. 53). This Act was repealed and replaced by an Act of the Province of Canada relating to copyright, passed in 1841 (4-5 Vict., c. 61), allowing copyright to any resident of the province on depositing with the Provincial Registrar a copy of the work and printing in the work a notice of the entry. In 1842 an Imperial Act (5-6 Vict., c. 45), gave to a work first published in the United Kingdom protection throughout the Empire. As at that time the United States had no agreement with the United Kingdom as to copyrights, United States publishers reprinted in cheap editions books copyrighted in the United Kingdom, and many such books naturally found their way into Canada. By the Foreign Reprints Act of 1847 (10-11 Vict., c. 95), the Imperial Government made it possible for Canadians to secure these cheap editions on making provisions safeguarding the rights of the British authors. This was done by Canada in 1850 by an "Act to impose a Duty on Foreign Reprints of British Copyright Works" (13-14 Vict., c. 6), and the duty so imposed was continued by the first Dominion Act of 1868 (31 Vict., cc. 54 and 56), the latter Act authorizing the Governor in Council to impose a duty not exceeding 20 p.c. *ad valorem* on such reprints and to distribute the proceeds among the owners of the copyrights.

By the B.N.A. Act, exclusive legislative authority in matters of copyright was assigned to the Dominion Parliament. In 1875 an Act was passed (38 Vict., c. 88), allowing a copyright for 28 years to persons domiciled in Canada or in any British possession, or who, being citizens of any country having an international copyright agreement with the United Kingdom, had registered their claim and complied with the usual conditions.

In 1886 an International Copyright Act (49-50 Vict., c. 33), was passed by the Imperial Parliament, giving to the Crown the right to accede to the Berne Convention. As Canada thus became a member of the Berne Convention, with the privilege of withdrawal, books published in Canada by Canadians secured the same privileges as books published first in the United Kingdom, an author of any country subscribing to the Convention obtaining in any other country in the union the same rights as an author of that country. An Imperial Act of 1911 set forth general copyright regulations for the Empire.

The Copyright Act of 1921 (amended in 1923 and consolidated in c. 32, R.S.C., 1927) sets out in section 4 the qualifications for a copyright and in section 5, its duration. "Copyrights shall subsist in Canada.....in every original literary, dramatic, musical and artistic work, if the author was at the date of the making of the work a British subject, a citizen or subject of a foreign country which has adhered to the (Berne) Convention and the Additional Protocol.....or resident within His Majesty's Dominions. The term for which the copyright shall subsist shall, except as otherwise expressly provided by this Act, be the life of the author and a period of fifty years after his death".

Copyright protection is extended to records, perforated rolls, cinematographic films and other contrivances by means of which a work may be mechanically performed. The intention of the Act is to enable Canadian authors to obtain full copyright protection throughout all parts of His Majesty's Dominions, foreign countries of the Copyright Union and the United States of America, as well as in Canada.

The Trade Marks Act (c. 201, R.S.C., 1927), was amended by c. 10 of the Statutes of 1928, giving the Minister the right to refuse to register trade marks in certain cases. The renewal of trade marks was also provided for, while it was also

enacted that in certain cases interested parties might apply to the Exchequer Court of Canada for the cancellation of a trade mark at any time within three years from its registration.

23.—Statistics of Copyrights, Trade Marks, etc., fiscal years ended Mar. 31, 1924-1928.

Items.		1924.	1925.	1926.	1927.	1928.
Copyrights registered	No.	1,760	2,795	2,861	3,167	2,889
Certificates of copyright	"	567	2,509	2,600	2,935	2,649
Trade marks registered	"	2,310	2,335	2,203	1,828	2,210
Industrial designs registered	"	422	478	525	376	411
Timber marks registered	"	17	22	12	18	8
Assignments registered	"	989	2,489	1,744	1,641	2,055
Fees received, net	$	68,847	75,917	79,927	79,239	83,791

Section 6.—Weights and Measures, Electricity and Gas Inspection.

Weights and Measures.—The object of weights and measures administration is to provide and maintain uniform standard units for the conduct of industry and commerce. Weights and measures, indeed, are complementary to the currency. Short weight, whether arising from fraud or accident, is identical in effect with short change.

Prior to Confederation, the administration of weights and measures was in the hands of each Provincial Government, but passed to the Dominion Government in 1867, under section 91 of the British North America Act. Steps were then taken to simplify the standards in use and to establish uniformity throughout the Dominion.

What might be termed the principal Weights and Measures Act of Canada was passed in the session of 1872-73; its provisions closely followed English weights and measures law, but the system of weights and measures to be legally used in trade was greatly simplified. This Act established as the primary legal standards for Canada the imperial pound, gallon and yard, but in place of the system of stones, quarters, hundredweights (112 lb.) and the long ton (2,240 lb.), it provided a decimal series of weights, 1, 2, 3, 5, 10, 20, 30, 50, 100 lb., and the short ton of 2,000 lb. The only exception to this was the continued use of the old French land measure, the arpent, in Quebec, and the use of the long ton (2,240 lb.) in the coal-mining industry, but not for the retail sale of coal. The troy ounce of 480 grains and its decimal sub-multiples are the legal weights for the weighing of gold and precious metals. The metric system is legal for all transactions.

Many changes, deletions and additions have been made to the Act of 1873 by later legislation, but its principles remain unchanged. The latest legislation is the Weights and Measures Act (c. 212, R.S.C., 1927).

The Weights and Measures Service was first administered by the Department of Inland Revenue, and offices were opened in all the principal centres of Canada and equipped with standards and inspection equipment. In 1918 the service was transferred and attached to the Department of Trade and Commerce. For purposes of administration, the Dominion is divided into 18 districts, each in charge of a district inspector and suitable staff stationed in the larger cities throughout the country. The chief rules of administration are as follows:—

(a) Every new type of weighing and measuring device must be submitted to the Department at Ottawa for approval before being placed on the market.

(b) Every new machine must be inspected and stamped by an inspector before being sold or taken into use.

(c) Imported machines are held by the customs until release is approved by the nearest inspector.

(d) All inspections take place on the traders' premises, except where devices are brought to the inspection offices.

(e) Fees are charged for inspection and stamping, the schedule being defined by Order in Council, and all moneys so collected are paid into the Consolidated Revenue Fund of Canada.

The following table is a summary of the articles and machines inspected in the fiscal year 1927-28.

24.—Inspections by the Weights and Measures Service, fiscal year 1927-28.

Articles.	Submitted.	Verified.	Rejected.	Percentage of rejection.
	No.	No.	No.	p.c.
Weights	84,474	82,908	1,566	1·85
Weights, metric	641	630	11	1·75
Measures of capacity	94,465	94,286	179	0·18
Measures of length	7,954	7,915	39	0·49
Milk cans	86,767	86,701	66	0·07
Ice cream containers	40,263	40,263	–	–
Babcock glassware	49,235	48,447	788	1·63
Measuring devices	34,776	31,926	2,850	8·19
Weighing machines	182,310	163,926	18,384	10·08
Weighing machines, metric	519	495	24	4·85
Tank wagons	184	184	–	–
Total	**581,588**	**557,681**	**23,907**	**4·3**

The total revenue collected by the Service during the year amounted to $362,243, and the total expenses, including salaries, totalled $317,665.

Electricity and Gas Inspection.—The Electricity and Gas Inspection Branch of the Department of Trade and Commerce administers three Acts, the Electricity Inspection Act (c. 22, 1928), the Gas Inspection Act (c. 82 ,R.S.C. 1927), and the Electricity and Fluid Exportation Act (c. 54, R.S.C. 1927).

The latest report of the Branch shows 416,009 electricity and gas meters tested in the fiscal year ended Mar. 31, 1928, as compared with 392,493 in the preceding year. The total revenue derived from electricity and gas inspection was $275,297, as compared with an expenditure of $199,028. The Branch also collected $374,351 as export duty and license fees under the provisions of the Electricity and Fluid Exportation Act; the cost of collecting this revenue was only $440.

Statistics collected as a by-product of the administration of the last-named Act will be found on p. 386, in the Water Power chapter of the Year Book. Here, however, may be given statistics collected by the Branch in the process of administration and showing the phenomenal increase in the number of consumers of electricity in the past thirteen years from 505,597 to 1,412,521 (Table **25**), the lesser increase in the gas meters in use from 267,454 in 1916 to 581,348 in 1928 (Table **26**), and the number of cubic feet of gas sold in Canada from 1920 to 1928, classified as carburetted water gas, coal gas, coke oven gas, natural gas and acetylene gas (Table **27**).

25.—Number of Electricity Meters in use, fiscal years ended Mar. 31, 1915-1928.

Fiscal Years.	Number.	Fiscal Years.	Number.
1915	505,597	1922	945,599
1916	517,629	1923	1,046,831
1917	594,737	1924	1,094,639
1918	661,403	1925	1,165,664
1919	717,776	1926	1,240,752
1920	743,468	1927	1,314,428
1921	860,379	1928	1,412,521

26.—Number of Gas Meters in use, fiscal years ended Mar. 31, 1916-1928.

Fiscal Years.	Manufactured Gas.	Natural Gas.	Acetylene.	Total.
	No.	No.	No.	No.
1916	199,514	67,940	–	267,454
1917	314,915	55,697	–	370,612
1918	325,244	88,795	–	414,039
1919	336,388	91,056	–	427,444
1920	350,777	85,004	513	436,294
1921	361,479	98,494	577	460,550
1922	366,840	101,785	430	469,055
1923	379,459	102,007	438	481,904
1924	390,548	105,804	425	496,777
1925	405,471	106,861	404	512,736
1926	443,067	85,752	425	529,244
1927	462,496	90,302	358	553,156
1928	482,076	98,915	357	581,348

27.—Number of Cubic Feet of Gas sold in Canada, fiscal years ended Mar. 31, 1920-28.

Fiscal Years.	Carburetted Water.	Coal Gas.	Coke Oven Gas.	Natural Gas.	Acetylene Gas.	Total.
	cu. ft.	cu. ft.	cu. ft.	cu. ft.	cu. ft.	cu. ft.
1920	4,487,511,639	6,787,370,045	–	17,117,100,328	1,669,650	28,393,651,662
1921	5,331,442,415	7,096,221,745	–	–	–	–
1922	4,668,391,857	8,433,860,903	–	11,289,592,401	1,005,000	24,392,850,161
1923	6,632,961,609	7,637,113,997	132,000	12,238,836,883	1,165,395	26,510,207,884
1924	5,214,843,290	8,042,882,100	3,188,600	14,866,618,700	1,194,059	28,128,726,149
1925	5,254,802,700	7,824,192,540	91,628,300	10,525,604,563	1,266,109	23,697,494,212
1926	4,835,613,326	8,149,894,391	1,449,794,500	13,004,469,776	1,210,894	27,440,982,887
1927	5,804,503,468	8,405,556,329	1,049,978,000	17,863,365,700	1,247,108	33,124,650,905
1928	6,883,634,603	7,488,964,653	1,680,237,100	20,365,048,768	1,325,510	36,419,210,634

Section 7.—Census of Wholesale and Retail Trading Establishments.

The distribution of commodities through the operation of wholesale and retail trading establishments is generally recognized as the least thoroughly explored department of the economic life of those nations whose advanced civilizations and varied needs make the business of supplying those needs through the mechanism of distribution an intricate and complicated process—a process of which all too little is generally known.

Ever since the creation of the Dominion Bureau of Statistics in 1918 it has been one of the objects of the Bureau to fill up this gap in the national statistics, and to blaze the trail for other countries in this connection. The matter is referred to in the first Annual Report of the Dominion Statistician for 1919, and at the census of 1921 instructions were given to the census enumerators to collect on a special schedule a list of all individuals, partnerships, joint stock companies, etc., engaged in whole-

sale and retail trading. This list was subsequently checked over with local directories, gazetteers and other sources of information, and made the basis of a special questionnaire addressed by post to each concern in 1924. Among the matters enquired into were the capitalization of joint stock companies, the actual capital invested in operating the business, the purchases and sales, the expenses for various items, and the number of employees of each sex.

Investigations such as the census of trading establishments depend for their completeness upon the co-operation of an enormous number of people. In a pioneer investigation that co-operation is naturally much more difficult to secure, either because those who are asked to assist are somewhat suspicious of a new departure or because they are unaccustomed to the particular form of the questionnaire or are generally inexperienced in the keeping of accounts. For various reasons, many of those invited to send in schedules did not do so, though most of those in this category were carrying on operations only on a very small scale. While the 66,814 firms which answered the questionnaire represent probably two-thirds of the total number of such establishments in 1924, it is thought that their capital, purchases and sales, etc., were far more than two-thirds of the totals for the Dominion.

Again, the census did not include what are known as "service establishments", such as tailors, restaurants, photographers, dyers, etc., numbering in the aggregate at least 25,000 and representing a considerable capital investment.

Summarized results of the census of trading establishments are presented in the following tables. Those who desire more detailed information are invited to apply to the Dominion Statistician for the "Census of Trading Establishments, 1924".

Grand Total of Capital, Purchases and Sales.—The grand total amount of the capital invested in the 66,814 reporting stores was shown by their inventories to be $1,580,123,723, including $914,990,830 in 60,181 retail stores, $476,559,544 in 3,782 wholesale stores and $188,573,349 in 2,851 stores doing both a wholesale and retail business. The total purchases of merchandise were $2,321,078,297, including $1,225,016,362 by retail stores, $812,139,031 by wholesale stores and $283,922,904 by wholesale-retail stores. The aggregate of sales was $3,030,663,185, including $1,642,103,468 by retail stores, $1,021,920,931 by wholesale stores and $366,638,786 by wholesale-retail stores. Details by provinces and classes of stores are given in Table 28.

28.—Census of Trading Establishments, 1924: Stores Reporting, Capital, Employees, Salaries and Wages, Sales and Purchases, by Provinces and Types of Business Transacted, 1924.

Province and kind of stores.	Stores reporting.	Capital.	Employees.		Salaries and wages.	Sales.	Purchases.
			Male.	Female.			
	No.	$	No.	No.	$	$	$
Prince Edward Island—							
Wholesale	14	709,037	83	23	105,425	2,341,895	2,046,239
Retail	374	4,337,852	450	275	489,226	6,626,694	5,133,606
Wholesale and retail	12	1,472,730	159	74	216,036	2,280,040	1,754,476
Total	400	6,519,619	692	372	810,687	11,248,629	8,934,321
Nova Scotia—							
Wholesale	129	12,712,461	1,134	198	1,734,321	29,312,557	24,630,044
Retail	3,114	36,049,609	3,243	2,375	4,375,588	59,912,740	45,901,321
Wholesale and retail	181	9,780,696	943	237	1,313,521	17,808,494	14,735,320
Total	3,424	58,542,766	5,320	2,810	7,423,430	107,033,791	85,266,685

28.—Census of Trading Establishments, 1924: Stores Reporting, Capital, Employees, Salaries and Wages, Sales and Purchases, by Provinces and Types of Business Transacted, 1924—concluded.

Province and kind of stores.	Stores reporting.	Capital.	Employees.		Salaries and wages.	Sales.	Purchases.
			Male.	Female.			
	No.	$	No.	No.	$	$	$
New Brunswick—							
Wholesale	191	13,552,831	1,497	530	2,206,808	32,924,694	26,720,153
Retail	2,190	28,510,905	3,158	2,721	5,028,810	55,629,949	42,931,138
Wholesale and retail	147	10,570,986	1,349	393	1,865,727	18,891,774	14,002,768
Total	2,528	52,634,722	6,004	3,644	9,101,345	107,446,417	83,654,059
Quebec—							
Wholesale	1,297	165,787,642	18,202	5,205	28,480,633	357,174,338	275,181,048
Retail	15,665	208,240,707	26,536	11,213	33,696,930	342,005,409	238,580,575
Wholesale and retail	791	62,396,917	9,006	1,773	11,945,436	121,505,760	92,544,952
Total	17,753	436,425,266	53,744	18,191	74,122,999	820,685,507	606,306,575
Ontario—							
Wholesale	1,120	138,728,073	12,879	3,686	22,725,113	317,276,927	258,169,557
Retail	21,892	341,164,614	36,678	22,604	59,249,144	646,992,751	492,518,971
Wholesale and retail	1,164	61,001,057	7,560	1,714	12,375,374	130,585,606	101,963,743
Total	24,176	540,893,744	57,117	28,004	94,349,631	1,094,855,284	852,652,271
Manitoba—							
Wholesale	321	60,157,964	4,568	1,022	8,545,000	107,631,116	85,005,452
Retail	3,757	69,250,847	8,435	6,271	13,209,418	135,055,882	100,368,642
Wholesale and retail	137	12,389,090	1,495	261	2,237,720	20,716,106	15,025,535
Total	4,215	141,797,901	14,498	7,554	23,992,138	263,403,104	200,399,629
Saskatchewan—							
Wholesale	158	21,667,498	1,413	229	2,440,052	35,895,895	28,224,110
Retail	5,191	100,304,558	8,343	4,510	13,861,259	163,820,335	124,050,384
Wholesale and retail	74	5,556,280	470	62	780,196	9,293,094	7,209,040
Total	5,423	127,528,336	10,226	4,801	17,081,507	209,009,324	159,483,534
Alberta—							
Wholesale	193	29,547,125	2,299	350	4,147,770	52,216,873	40,313,766
Retail	3,970	62,659,114	5,300	2,384	8,512,737	101,440,086	76,842,177
Wholesale and retail	84	8,578,569	737	114	1,136,050	14,552,914	11,239,011
Total	4,247	100,784,808	8,336	2,848	13,796,557	168,209,873	128,394,954
British Columbia—							
Wholesale	359	33,696,913	3,575	792	5,824,493	87,146,636	71,848,662
Retail	4,028	64,472,624	7,290	4,201	12,129,736	130,619,622	98,689,548
Wholesale and retail	261	16,829,024	1,590	251	2,408,035	31,004,998	25,448,059
Total	4,648	114,996,561	12,455	5,244	20,362,264	248,771,256	195,986,269
Canada—							
Wholesale	3,782	476,559,544	45,650	12,035	76,209,615	1,021,920,931	812,139,031
Retail	60,181	914,990,830	99,433	56,554	150,552,848	1,642,103,468	1,225,016,362
Wholesale and retail	2,851	188,573,349	23,309	4,879	34,278,095	366,638,786	283,922,904
Grand Total	**66,814**	**1,580,123,723**	**168,392**	**73,468**	**261,040,558**	**3,030,663,185**	**2,321,078,297**

Retail Trading Establishments.—The total number of retail trading stores reporting was 60,181, using a capital of $914,990,830 or an average of $15,204, making purchases to the amount of $1,225,016,362 and selling goods to the amount of $1,642,103,468. The difference between purchases and sales was therefore $417,087,106, being the net takings in of 60,181 stores, except for changes which may have taken place in the values of inventories at the beginning and end of the year. Salaries and wages absorbed $150,552,848, paid to 99,433 male and 56,554 female employees. The number of stores, capital, sales and purchases, salaries and wages, etc., for 41 leading kinds of retail stores are given in Table **29.** The average sales of all retail stores come to $27,286, as compared with average purchases of $20,356.

While Montreal leads in the number of retail stores, reporting 6,460 to Toronto's 4,353, the capital invested in Montreal is only $96,438,682, as compared with $99,271,451 in Toronto. The sales of goods by Toronto retail stores totalled $209,671,711, as compared with sales of $193,326,994 by Montreal retail stores.

Wholesale Trading Establishments.—The 3,782 wholesale trading establishments reporting had a total capital of $476,559,544 or an average of $126,007 per establishment, purchased goods to the aggregate value of $812,139,031 or $214,738 per establishment, and made sales to the value of $1,021,920,931, or $270,206 per establishment. They paid a total of $76,209,615 in wages and salaries to 45,650 male and 12,035 female employees. The number of stores reporting their capital, sales and purchases, salaries and wages, etc., are given by classes of commodities dealt in in Table **30.**

Of these wholesale trading establishments, 967 with a capital of $128,548,692 are located in Montreal, 552 with a capital of $88,305,813 in Toronto, and 302 with a capital of $53,876,793 in Winnipeg. Thus nearly one-half of the wholesale houses in Canada are situated in these three leading cities, these 1,821 houses possessing $270,731,000 of capital or over 57 p.c. of the total.

Wholesale-Retail Trading Establishments.—The 2,851 trading establishments doing both a wholesale and a retail business had a total capital of $188,573,349 or an average of $66,143 per establishment. Their purchases amounted to $283,922,904 and their sales to $366,638,786. They paid $34,278,095 in salaries and wages to 23,309 male and 4,879 female employees.

They were especially numerous in the city of Montreal, where 336 such stores were operating, with a capital of $34,589,140.

Establishments doing both a wholesale and retail business were especially numerous in the selling of oils, gasolene, etc., in which 582 such stores were engaged. Details will be found in Table **31.**

29.—Retail Trading Establishments: Number of Stores Reporting, Capital, Sales, Purchases, Salaries and Wages and Number of Employees, by Classes of Commodities traded in, 1924.

Classification.	Stores reporting.	Capital.	Sales.	Purchases.	Salaries and wages.	Employees.	
						Male.	Female.
	No.	$	$	$	$	No.	No.
Agricultural implements and machinery	635	31,228,103	26,130,124	18,252,299	3,072,988	1,536	250
Automobiles and accessories	1,977	37,373,241	96,559,833	77,381,442	7,799,981	5,892	512
Boots and shoes	1,584	25,389,099	35,739,778	25,829,808	3,411,364	2,230	691
Books and stationery	802	11,071,761	16,713,778	11,018,994	2,326,884	1,213	910
Butchers	3,727	24,826,521	80,494,778	64,309,552	6,114,175	6,020	732
Coal and wood	1,081	23,953,454	58,164,642	45,061,172	4,674,249	4,682	384
Confectionery	3,671	17,489,710	35,950,090	22,978,290	3,512,025	2,500	2,460
Crockery and glassware	82	1,318,853	1,465,395	987,489	164,493	103	70
Dairy products	256	2,987,701	11,713,692	8,405,801	1,164,491	851	192
Drugs and sundries	2,718	34,184,143	56,195,639	38,529,379	6,351,491	4,667	1,412
Dry goods	2,703	58,074,637	81,457,609	59,356,847	8,005,582	3,264	5,780
Electrical supplies	269	3,846,995	6,755,681	4,316,652	1,345,290	959	168
Florists	221	2,986,144	3,858,386	1,930,045	637,333	418	190
Flour and feed	596	7,513,609	17,592,745	14,647,766	827,780	736	96
Fruit and vegetables	523	3,178,933	9,031,590	6,918,618	511,783	424	223
Furniture	696	19,614,337	22,930,969	15,882,499	2,365,039	1,544	300
General and departmental	11,115	269,195,083	494,708,911	377,527,049	43,845,199	24,986	27,181
Groceries	12,640	84,572,660	220,290,427	175,125,263	12,180,666	11,233	4,318
Grocers and butchers	538	5,694,454	18,891,618	15,420,079	1,255,349	1,087	273
Hats, caps and furs	288	7,477,908	11,127,004	7,007,799	1,611,547	820	813
Hardware, stoves, etc.	2,480	50,334,810	66,630,289	50,217,848	6,166,629	4,749	633
House furnishings	140	9,280,587	10,179,225	6,496,079	1,396,462	901	221
Instruments, scientific, etc.	32	2,197,798	3,036,434	2,021,534	546,077	277	95
Jewelry	1,446	22,515,252	24,976,902	14,374,607	3,920,436	2,139	1,090
Leather goods, saddlery, etc.	624	3,862,084	4,953,303	3,417,821	349,631	350	53
Lumber	1,056	41,143,728	45,909,086	34,191,192	5,405,990	3,509	229
Men's clothing and furnishings	2,776	38,743,290	64,724,674	43,375,811	7,517,756	4,767	2,236
Music and musical instruments	390	22,240,270	14,246,503	8,348,107	2,176,546	1,128	443
Millinery	943	2,863,748	6,984,095	4,121,583	883,207	81	1,370
Paints and wall paper	132	2,120,637	2,942,254	1,706,323	580,239	435	69
Rubber goods	4	154,323	581,678	313,304	44,902	26	8
Second-hand and junk	631	4,206,385	6,896,844	4,385,879	429,234	440	115
Seeds	9	211,404	445,086	341,465	34,621	25	4
Sewing machines	125	1,888,648	3,008,169	1,155,264	1,298,744	1,080	134
Sporting goods	183	1,669,198	2,716,054	1,687,771	305,079	226	32
Tobacco	1,248	7,932,271	15,559,550	11,402,298	1,301,410	1,197	224
Women's clothing and furnishings	587	10,029,299	23,313,067	16,674,282	2,732,037	702	2,312
Builders' supplies	58	4,719,900	9,679,949	6,767,112	1,190,546	799	50
Fish	48	287,086	1,320,577	1,012,995	108,282	103	17
Office supplies and typewriters	126	3,719,633	6,401,979	3,825,673	1,822,828	794	188
Oils, gasolene, etc.	1,021	12,893,133	21,825,070	18,291,971	1,164,483	540	76
Total	**60,181**	**914,990,830**	**1,642,103,468**	**1,225,016,362**	**150,552,848**	**99,433**	**56,554**

39.—Wholesale Trading Establishments: Number of Stores Reporting, Capital, Sales, Purchases, Salaries and Wages and Number of Employees, by Classes of Commodities traded in, 1924.

Classification.	Stores reporting.	Capital.	Sales.	Purchases.	Salaries and wages.	Employees.	
						Male.	Female.
	No.	$	$	$	$	No.	No.
Agricultural implements and machinery	56	39,565,593	23,207,960	11,501,433	2,054,683	1,433	198
Automobiles and accessories	58	3,461,903	7,349,476	4,854,716	782,733	491	133
Boots and shoes	105	13,544,793	25,696,759	19,823,590	2,278,118	1,187	356
Books and stationery	111	10,671,556	22,357,780	15,917,329	3,131,662	1,432	887
Butchers	181	12,908,005	47,387,128	39,647,173	2,864,808	2,323	128
Coal and wood	89	11,012,537	35,767,955	30,898,614	2,110,293	1,090	93
Confectionery	152	6,687,533	15,572,882	10,785,938	1,888,616	971	1,317
Crockery and glassware	38	4,400,070	5,090,654	3,520,314	886,757	428	140
Dairy products	185	10,695,947	54,060,048	45,111,569	2,912,700	1,952	298
Dry goods	324	57,478,139	101,643,080	78,237,458	8,459,796	5,039	1,058
Drugs and sundries	104	9,649,617	18,866,239	12,555,795	2,095,178	1,009	320
Electrical supplies	82	14,689,447	22,992,387	19,056,351	1,484,842	770	293
Florists	14	1,770,970	1,288,091	275,230	431,749	426	31
Flour and feed	81	7,232,896	30,679,577	28,066,485	848,519	670	52
Fruit and vegetables	230	10,283,060	62,278,891	53,057,193	3,292,808	2,006	330
Furniture	14	1,046,243	1,182,266	659,622	222,353	264	9
General and departmental	42	13,399,873	22,157,098	5,173,695	1,665,482	957	252
Groceries	491	93,288,205	256,087,572	216,424,205	12,634,333	7,149	1,404
Hats, caps and furs	90	6,929,605	16,101,314	12,049,347	1,496,587	894	386
Hardware, stoves, etc.	164	35,636,510	54,081,352	43,370,952	5,226,456	2,961	515
House furnishings[1]	3	536,819	191,528	93,876	39,045	35	3
Instruments, scientific, etc	18	1,067,107	1,593,620	886,803	214,355	119	59
Jewelry	79	5,592,166	7,789,036	5,438,375	919,372	488	165
Leather goods, saddlery	92	16,001,622	16,549,634	12,200,525	1,831,538	1,337	223
Lumber	281	27,577,023	58,340,621	46,466,904	3,769,408	3,456	186
Men's clothing and furnishings	71	12,981,676	15,645,112	9,091,994	3,526,785	1,526	1,152
Music and musical instruments	34	2,283,436	3,612,800	2,459,999	576,340	326	62
Millinery	39	3,847,250	6,978,641	4,561,445	1,032,377	387	445
Paints, varnish and wall paper	35	3,399,669	5,140,622	3,801,579	666,023	376	83
Rubber goods	47	7,472,047	19,454,977	15,443,524	1,382,526	837	235
Second-hand and junk	28	1,386,546	2,551,820	1,968,864	191,068	113	72
Seeds	11	375,134	805,327	540,408	73,110	32	46
Sporting goods	7	1,013,500	1,419,237	488,689	119,760	79	22
Tobacco	122	7,461,550	21,753,993	17,950,998	1,192,097	733	312
Women's clothing and furnishings	37	1,473,555	3,612,750	2,356,592	606,461	192	515
Builders' supplies	28	3,562,323	4,307,897	2,715,781	730,247	651	22
Fish	61	3,427,708	8,502,148	6,518,888	673,242	543	82
Office supplies and typewriters	51	4,801,749	13,688,569	6,791,646	1,136,116	569	79
Oils, gasolene, etc	127	7,946,162	12,234,060	9,565,424	761,272	399	72
Total	**3,782**	**476,559,544**	**1,021,920,931**	**812,139,031**	**76,209,615**	**45,650**	**12,035**

[1]Includes sewing machines.

31.—Wholesale-Retail Trading Establishments: Number of Stores Reporting, Capital, Sales, Purchases, Salaries and Wages and Number of Employees, by Classes of Commodities traded in, 1924.

Classification.	Stores reporting.	Capital.	Sale.	Purchases.	Salaries and wages.	Employees.	
						Male.	Female.
	No.	$	$	$	$	No.	No.
Agricultural implements and machinery	38	4,578,235	3,947,329	2,614,707	463,474	226	50
Automobiles and accessories	167	16,694,145	36,031,694	29,292,586	3,047,574	1,918	242
Boots and shoes	25	2,412,914	4,198,173	2,559,553	899,879	640	259
Books and stationery	71	5,068,111	7,806,508	5,011,657	1,281,438	748	348
Butchers	211	2,783,898	10,465,164	8,285,777	845,061	662	75
Coal and wood	157	13,953,846	39,794,421	32,547,206	2,626,006	1,942	138
Confectionery	64	747,709	1,612,155	1,044,072	195,763	120	120
Crockery and glassware	33	1,955,561	2,861,163	1,877,603	458,926	301	76
Dairy products	128	9,301,806	23,079,839	15,358,746	3,397,913	2,328	159
Drugs and sundries	46	5,901,793	10,702,364	8,707,747	992,559	618	248
Dry goods	45	3,821,031	7,361,977	5,572,262	806,102	399	322
Electrical supplies	59	1,878,443	3,793,348	2,599,418	535,475	318	90
Florists	61	2,284,926	1,761,891	602,054	500,640	395	73
Flour and feed	176	4,874,252	19,111,457	16,424,053	749,298	560	83
Fruit and vegetables	48	974,872	3,666,306	2,998,315	199,862	193	36
Furniture	8	276,382	415,369	276,039	37,738	28	6
General and departmental	119	11,064,437	18,207,429	14,092,078	1,484,111	1,424	467
Groceries	113	4,729,228	13,020,560	10,710,556	769,497	526	84
Grocers and butchers	11	245,619	1,032,171	842,753	100,655	66	9
Hats, caps and furs	36	6,320,255	8,200,528	5,631,969	896,668	549	420
Hardware, stoves, etc	162	26,980,409	40,216,113	29,971,330	4,169,600	2,772	436
House furnishings	3	154,912	362,474	256,138	53,660	36	1
Instruments, scientific, etc	18	1,660,974	2,362,772	1,813,243	260,057	168	40
Jewelry	12	624,672	626,571	425,202	65,932	38	13
Leather goods, saddlery, etc	36	2,498,359	3,860,373	2,729,355	631,901	458	151
Lumber	95	10,130,018	15,411,448	11,423,849	1,942,830	1,755	60
Men's clothing and furnishings	42	1,159,947	3,471,803	1,578,216	909,612	522	174
Music and musical instruments	23	2,079,186	1,979,451	1,302,238	308,040	151	53
Paints and wall-paper	21	873,331	1,841,663	1,184,539	316,507	215	26
Second-hand and junk	19	504,009	768,542	512,574	117,335	80	12
Seeds	29	2,395,684	7,497,712	6,360,369	465,216	182	108
Sporting goods	19	1,416,110	2,594,954	1,868,562	294,677	202	76
Tobacco	118	2,837,797	8,100,756	6,439,750	462,251	321	49
Women's clothing and furnishings	4	676,654	291,810	183,265	81,475	62	39
Builders' supplies	23	4,808,301	4,395,466	3,167,914	580,141	497	24
Fish	7	93,424	250,187	193,117	22,109	18	13
Office supplies and typewriters	19	1,382,611	2,775,410	2,024,855	367,170	149	56
Oils, gasolene, etc	582	28,332,178	52,573,067	45,268,809	2,891,096	1,689	239
Miscellaneous	3	97,310	188,368	80,428	49,847	33	4
Total	**2,851**	**188,573,349**	**366,638,786**	**283,922,904**	**34,278,095**	**23,309**	**4,879**

CHAPTER XVIII.—TRANSPORTATION AND COMMUNICATIONS.

Canada is a country of magnificent distances, nearly 4,000 miles in length from east to west, with its relatively small population of 9,658,000[1] in the main thinly distributed along the southern borders of its vast area. Different parts of the country are shut off from each other by areas which are almost wildernesses, such as the region lying between New Brunswick and Quebec and the areas north of lakes Huron and Superior, the latter dividing the industrial region of Ontario and Quebec from the agricultural areas of the prairies. To such a country with such a population, producing, like our western agriculturists, mainly for export, or, like our manufacturers, largely for consumption in distant portions of the country itself, cheap transportation is a necessity of life. Before 1850, when the water routes were the chief avenues of transportation and these were closed by ice for several months, the business of the central portions of the country was during the winter in a state of stagnation or hibernation. The steam railway was therefore required for the adequate economic development of Canada, more particularly for linking up with the economic and industrial world the vast productive areas of the Canadian West, and thus promoting their development. The construction of the Canadian Pacific railway gave to Canada, as an economic unit, length; the building of the newer transcontinental railways has given the country breadth.

Railway transportation, though essential, is nevertheless expensive, particularly in recent years, and for bulky and weighty commodities. Hence new enterprises have either been undertaken or are under consideration for improving water communication, such as the new and deeper Welland canal, the deepening of the St. Lawrence canals and of the channel between Montreal and Quebec, and the utilization of the Hudson Bay route for the transportation of western grain to the British and continental European markets.

Problems of transportation are, therefore, of vital importance in the economic life of Canada, occupying a large part of the time and thought of our Parliaments and public men. Scarcely less important, from the social and the economic points of view, is the development of methods of communication in a country so vast and so thinly peopled. The post office has been a great though little recognized factor in promoting solidarity among the people of different parts of the Dominion, while telegraphs and telephones have gone far to annihilate distance; the rural telephone, in particular, has been of great social and economic benefit in country districts. That the use of the automobile has also been of great benefit in promoting social intercourse among the dwellers in rural districts is evidenced by the fact that in Ontario alone 99,649 or 29 p.c. of the passenger cars registered in the province were owned by farmers in 1926. The press, again, assisted by cheap telegraph and cable rates, and reaching through the mails all over the country, has been of great use in developing national sentiment. To sum up, it may be said that the progress of modern inventions, not least among which is the radiophone, has greatly improved living conditions in both rural and urban communities throughout the Dominion.

[1] Estimated population, 1928.

In Part I of this chapter is included a statement of the tendencies toward monopoly which have made it necessary to establish a measure of Government control over those transportation and communication agencies which are not governmentally-owned and operated; to this is added an account of the origin and functions of the Board of Railway Commissioners. The subsequent parts deal in order with steam railways, electric railways, express companies, roads, motor vehicles, air navigation, canals, shipping, telegraphs, telephones and the post office.

PART I.—GOVERNMENT CONTROL OVER AGENCIES OF TRANSPORTATION AND COMMUNICATION.

Private enterprises engaged in the transportation and communications business in Canada have in the past 50 years shown the same tendency toward consolidation and amalgamation which has been evident elsewhere throughout the civilized world. The basic reason for such consolidation and amalgamation has been the fact that the business of transportation and communication is, generally speaking, a "natural monopoly", *i.e.*, a type of enterprise in which service can be more efficiently and economically rendered to the public where one or a few concerns control a particular type of service throughout the country. The outstanding example of these consolidations in Canada is the concentration of the control of the railways of the country in the hands of the Canadian Pacific Railway and the Canadian National Railway Companies.

However, since such control brings with it an element of monopoly and possible overcharge which is distasteful to the public, it has in Canada, as in other countries, been deemed advisable to set up authorities controlling the rates to be charged and the other conditions on which services to the public are to be rendered by common carriers. This control, so far as railways within the sphere of action of the Dominion Government are concerned, has been placed in the hands of the Board of Railway Commissioners, whose authority has been extended to cover various other means of transportation and communication. A brief summary of the history and functions of this body follows.

Besides the Board of Railway Commissioners, dealing with the larger public utilities coming under the jurisdiction of the Dominion Government, there exist in several of the provinces bodies which undertake among their duties the supervision and control of local public utilities operating under the jurisdiction of the provinces, and the regulation of their rates of service. Among these is the Railway and Municipal Board of Ontario, established in 1906, which controls the construction, operation and maintenance of railways and the approving of their rates and their rules and regulations affecting the public. Similarly, in Quebec, a Commission of Public Utilities was established in 1909 and was given superintendence over all Quebec corporations, other than municipalities, "that own, operate, manage or control any system, works, plant or equipment for the conveyance of telegraph or telephone messages or for the conveyance of travellers or goods over a railway, street railway or tramway, or for the production, transmission, delivery or furnishing of heat, light or power, either directly or indirectly to or for the public". In Nova Scotia there is a Board of Commissioners of Public Utilities and in Manitoba a Public Utilities Commission, with similar functions, while in the three westernmost provinces these same duties are performed by provincial Departments of Railways.

The Board of Railway Commissioners for Canada.

In the early days of railway building in Canada, the provinces were more concerned with rapid development than with rate regulation. Under the Railway Clauses Consolidation Act of 1851, rates were fixed by the directors of the railway, subject to the approval of the Governor in Council. Beyond this, competition was relied upon to bring rates to a reasonable level. As time went on, however, those who believed in the efficacy of competition as a regulator were disillusioned. For example, complaints were made that the Grand Trunk gave low through transit rates, say from Chicago to New York, through Canada, and recouped itself by high non-competitive rates in Upper Canada. In 1888 the supervision of rates was assigned to the Railway Committee of the Privy Council, sitting in Ottawa.

At the turn of the century, two reports were prepared for the Department of Railways and Canals by Professor S. J. McLean, the first setting down the experience of railway commissions in England and the United States, and the second discussing Canadian rate grievances, with a recommendation that regulation by commission be adopted in Canada. The second report found that non-competitive rates were exorbitant as compared with competitive ones and that the railways had exercised their right to vary rates without notice, to the great distress of shippers. Among the weaknesses of the Railway Committee as a rate-regulating body was its fixed station at Ottawa, which made the cost of appearing before it practically prohibitive. Besides, members of Parliament had no necessary aptitude for dealing with railway rates, and of their two functions—legislative and administrative—the legislative was to them the more important.

The Board of Railway Commissioners for Canada, as provided for by the amended Railway Act of 1903, was organized on Feb. 1, 1904. In the beginning, its membership consisted of a Chief Commissioner, a Deputy Chief and one Commissioner. In 1908 the membership was increased by the inclusion of an Assistant Chief Commissioner and two other Commissioners. According to the Act, the Board may be divided into two sections of three, but since any two members constitute a quorum, two Commissioners usually hear all but the more important cases, and, agreeing, give the decision of the Board.

The powers of the Commission, in brief, are in matters relating to the location, construction and operation of railways. The most important of these powers has to do with rate regulation. Passenger rates are divided into standard and special, freight rates into standard, special and competitive. Standard rates are maximum rates and the only ones which must be approved by the Board before they are applied. Special and competitive rates, being less than maximum rates, may be applied by railways without the Board's approval, provided that a change of rates has been advertised. But important rate adjustments usually come to the notice of the Commission, for the changed rate alters the extent of the territory in which a shipper can compete and on this account he is apt to appeal the case to the Commission. It is a knotty question to mark the boundaries of competitive areas—to decide whether Nova Scotian manufacturers should be given rates which would allow them to compete west of Montreal, or again, whether high construction and operation costs in British Columbia should enforce a rate which prevents her goods from moving far into the prairies. By an amendment to the Railway Act, the regulation of telephone, telegraph and express rates was given to the Commission, but with narrower powers than were given to it in dealing with railways.

The procedure of the Board is informal, as suits the nature of its work, for experience has shown that hearings in strict legal form give the parties to the argu-

ment uncompromising attitudes. If possible, matters are settled by recommendations to the railway company or the shipper; thus, during 1926, 90 p.c. of the applications to the Board were settled without formal hearing. The Railway Committee had kept its station at Ottawa, giving only formal hearings, so that the grievances of those who could not afford to appear in person or pay counsel went unredressed. The itineraries of the Railway Commission are arranged so that evidence may be taken at the least expense to those giving it.

The Chief or Assistant Chief Commissioner, depending upon which one is presiding, gives final judgment on points of law when, in the opinion of the Commissioners, the question is one of law. On questions of fact the findings of the Board are final and are not qualified by previous judgments of any other court. Questions of law and jurisdiction are differentiated. In the first case, the Board may, if it wishes, allow an appeal to the Supreme Court; in the second, the applicant needs no permission to present his appeal.

The Railway Committee of the Privy Council, being a Committee of the Cabinet, was responsible to Parliament. When the powers of the Committee were made over to the Railway Commission the responsibility was retained, but necessarily by a different means. There is now provision for an appeal from any decision to the Governor in Council, who may also of his own motion interfere to rescind or vary the action of the Board, but the power to rescind or vary usually consists in referring to the Board for reconsideration. From its inception until Dec. 31, 1927, the Board gave formal hearing to 9,186 cases. Its decision was appealed in 90 cases, 50 of these being to the Supreme Court of Canada and 40 to the Governor-General in Council. Of the appeals 11 of those carried to the Supreme Court were allowed and 3 of those to the Governor-General in Council.

PART II.—STEAM RAILWAYS.

Section 1.—Historical Sketch.

The first Canadian railway was constructed in 1836 between St. Johns, Quebec, and La Prairie, with the object of shortening the journey between Montreal and New York. A second railway from Montreal to Lachine was opened in 1847, and a third line to St. Hyacinthe in 1848. In 1850, however, there were only 66 miles of railway in all Canada.

Commencement of the Railway Era—The Grand Trunk.—The railway era in Canada may be said to have begun in 1851, when an Act was passed providing for the construction of a main line of railway between the two Canadas. The result was the completion of the Grand Trunk railway between Montreal and Toronto in 1856, its extension westward to Sarnia in 1859, and eastward to Rivière du Loup in 1860. The Atlantic and St. Lawrence railway, from Portland, Maine, to the Canadian boundary, was leased for 999 years, and in 1859, on the completion of the Victoria bridge across the St. Lawrence at Montreal, the Grand Trunk had a through route 800 miles long from Portland to Sarnia. A line from Detroit to Port Huron was leased in 1859, the Champlain roads in 1863, the Buffalo and Lake Huron in 1867, while the Chicago and Grand Trunk was completed from Port Huron to Chicago in 1880. In 1881 the Georgian Bay and Lake Erie system (171 miles) was incorporated, and in the following year the Great Western (904 miles) and the Midland system (473 miles) were also incorporated into the Grand Trunk. In 1888 the Northern railway, which had been opened from Toronto to Barrie in 1853, and the Hamilton and Northwestern railway, were taken over by the Grand Trunk. In 1891 the completion of the St. Clair tunnel gave direct communication

with the railways of the United States. In the 1870's the gauge had been changed from the original 5′ 6″ to the standard gauge of 4′ 8½″.

Construction of the Intercolonial.—An intercolonial railway between the Maritime Provinces and Canada had been proposed as early as the 1830's. In 1844 the Imperial Government made a survey for a military road, and in 1851 agreed to recommend to Parliament either a guarantee of interest or an advance of the sum required to build a railroad. Differences of opinion as to the route resulted in the project falling through, but in 1853 Nova Scotia undertook to construct by 1862 a trunk line from Halifax to the New Brunswick frontier, with branch lines to Pictou and Victoria Beach. In both Nova Scotia and New Brunswick, however, the scheme of an intercolonial railway broke down for lack of funds, and in 1867 there were only 341 miles of railway in the Maritimes—196 miles in New Brunswick, including lines from Saint John to Shediac and from St. Andrews to Richmond; 145 miles in Nova Scotia, including lines from Halifax to Truro and Windsor, and from Truro to Pictou. These, under the B.N.A. Act, passed to the Dominion Government. The latter undertook the completion of the railway, and in 1876 the line was opened. In 1879 the Rivière du Loup branch of the Grand Trunk was acquired, and in 1898 the Drummond Counties railway from Chaudière Junction to Ste. Rosalie Junction was leased and running rights obtained from the latter point over the Grand Trunk tracks into Montreal, the Intercolonial thus becoming a competitor for the business of the commercial metropolis of Canada.

The First Transcontinental Railway—the C.P.R.—As early as 1849 a pamphlet published by Major Carmichael-Smyth advocated the construction of a Canadian Pacific railway nearly along the present route. In 1851 a Parliamentary Committee reported against undertaking the enterprise at that time. In 1871 the terms under which British Columbia entered Confederation bound the Dominion to commence the Pacific railway within two years and complete it within ten years. The building of the railway as a public work actually commenced in 1874, but was not very rapidly pushed forward. In 1880 the Government entered into a contract with the Canadian Pacific Railway syndicate, granting to the syndicate all portions of the line completed or under construction, a cash subsidy of $25,000,000, a land grant of 25,000,000 acres, free admission of materials for construction, and protection for 20 years against competing lines. The company on its side agreed to complete the railway to a fixed standard by May 1, 1891, and thereafter to maintain it efficiently. As a matter of fact the last spike on the main line was driven on Nov. 7, 1885. Like the Grand Trunk, the Canadian Pacific railway began to acquire branch lines as feeders, among them being the North Shore, Quebec, Montreal, Ottawa and Occidental in 1881, the Winnipeg to Manitou line in 1882, the Ontario and Quebec, the Credit Valley and the Toronto, Grey and Bruce in 1883, the St. Lawrence and Ottawa and the Manitoba Southwestern in 1884, the North Shore, Nova Scotia, in 1885, the Atlantic and Northwest in 1886, the West Ontario Pacific in 1887, the Sudbury and Sault Ste. Marie in 1888, the New Brunswick railway and the Columbia and Kootenay in 1890 and the Montreal and Ottawa and Montreal and Lake Maskinongé in 1892.

The Second Transcontinental—the Canadian Northern Railway.—The second transcontinental railway, the Canadian Northern, was begun in 1896 with the completion by Mackenzie and Mann of the 125-mile line of the Lake Manitoba Railway and Canal Company, chartered in 1889. Next were acquired the charters of the Winnipeg and Hudson Bay, the Manitoba and Southeastern, the Ontario and Rainy River, and the Port Arthur, Duluth and Western. Assisted by the Manitoba

Government, which desired to establish competition with the Canadian Pacific railway, the Canadian Northern next secured the Manitoba lines of the Northern Pacific and in 1902 completed its line from Winnipeg to Port Arthur. By securing guarantees of bonds from the Dominion and Provincial Governments it was enabled to complete the great scheme of a transcontinental road, opening up in Ontario and in the West large undeveloped areas which are now in process of settlement.

The Third Transcontinental—the Grand Trunk Pacific.—Before the continental ambitions of the Canadian Northern were generally understood, the question came up of building an additional transcontinental line. About the end of the century, the Grand Trunk began to look with envy at the large and increasing revenues drawn by the Canadian Pacific Railway from the great Northwest. In 1902, the Grand Trunk submitted to the Dominion Government a proposition to construct a line from North Bay to the Pacific coast, provided that a grant of $6,400 and 5,000 acres of land per mile should be made. The Government, in 1903, submitted a counter-proposition that the line, instead of terminating at North Bay, should be continued east to Moncton, New Brunswick, the eastern section from Moncton to Winnipeg to be constructed by the Government and leased to the Grand Trunk for a 50-year period, the railway paying no rent for the first seven years and 3 p.c. on the cost of the railway for the remaining 43 years. The western half of the railway from Winnipeg to Prince Rupert was to be built by the Grand Trunk, the Government guaranteeing interest on bonds to 75 p.c. of the cost of construction, not exceeding $13,000 per mile on the prairie section and $30,000 per mile on the mountain section. This proposition was accepted and construction commenced on the National Transcontinental and the Grand Trunk Pacific.

Effect of the War on the Railways. The Drayton-Acworth Report.—With two new transcontinental main lines, besides branches, under construction, Canadian railway mileage was doubled between 1900 and 1915, increasing from 17,657 miles in the former year to 34,882 miles in the latter. The builders of the new lines, as well as the Canadian Government and people, had expected that immigration of capital and labour from Europe would rapidly settle the areas tributary to the new railroads and give them abundant and lucrative traffic, as had been the case with the C.P.R. Instead, the war came, and European labour and capital were conscripted for the struggle; immigration fell off, while cost of operation increased, owing to the scarcity of labour and material in Canada. The interest on the bonds had to be met, and in 1915 the Government felt it necessary to give assistance to the railways. In 1916, after having again made loans to the Grand Trunk Pacific Railway and the Canadian Northern Railway Co., a Royal Commission was appointed by Order in Council of July 13, 1916, to investigate:—(1) the general problem of transportation, (2) the status of each of the three transcontinental systems, (3) the reorganization of any of the said systems, or their acquisition by the State, and (4) other matters considered by the commission to be relevant to the general scope of the inquiry. Alfred Holland Smith of New York, Sir Henry Drayton of Ottawa and Sir George Paish of London, England, were originally appointed to the Commission. On the resignation of the latter, William M. Acworth, a distinguished English authority on railways, was appointed to take his place. The majority report of the Commission, signed by Sir Henry Drayton and Mr. Acworth, has formed the basis of the subsequent railway policy of Canada. Their recommendation was that the public should take control of the Canadian Northern, of the Grand Trunk Pacific and of the Grand Trunk proper, and that they should be administered on purely business principles by a board of trustees,

such compensation as seemed proper to be decided by arbitration and given to the shareholders of the Canadian Northern and the Grand Trunk.

The process of the acquisition of these railways and the financial results of their operation down to the end of 1927 are described in a special article, "The Origin and Growth of Government-owned railways in Canada", appearing on pages 653 to 661 of this volume, and illustrated by tables dealing with capital expenditure, physical operations, earnings and expenses, and the growth of the railway debt to the public and to the Government.

Section 2.—Statistics of Steam Railways.

The steam railways of the world may be said to have commenced their operations with the opening of the Stockton and Darlington railway in England on Sept. 26, 1825. In the intervening century, the mileage of the steam railways of the world had increased to an estimated total of 752,434 miles in 1926, of which figure 289,463 miles were State railways. Of the enormous total, nearly one-third, or 248,671 miles, was in the United States. Canada was second with 40,236 miles (exclusive of 336 miles of Canadian railways in the United States) and British India third with 39,049 miles. Germany had 34,811 miles, France 33,197 miles, Russia in Europe 35,659 miles, Australia 25,683 miles, Great Britain 24,342 miles, Argentina 23,429 miles, Brazil 19,043 miles, Mexico 16,443 miles.[1] Of all the leading countries in the world Canada had the smallest population per mile of her railway lines, *viz.*, 234.

The mileage of steam railways in operation in Canada is given by single years for each year from 1835 to 1927 in Table **1**, showing the first great period of construction in the 1850's, when the mileage grew from 66 to 2,065, the lull in the 1860's, the second great period of construction in the 1870's and 1880's, the lull in the 1890's, the third great period of construction between 1900 and 1915 and the subsequent falling-off in the rate of increase. The mileage in the different provinces is given for recent years in Table **2**.

1.—Record of Steam Railway Mileage as at June 30, 1835-1919, and Dec. 31, 1919-1927.

Years.	Number of miles in operation.	Years.	Number of miles in operation.	Years.	Number of miles in operation.	Years.	Number of miles in operation.
1835	–	1868	2,270	1889	12,628	1910	24,75
1836–1846	16	1869	2,524	1890	13,151	1911	25,40
1847–1849	54	1870	2,617	1891	13,838	1912	26,8
1850	66	1871	2,695	1892	14,564	1913	29,30
1851	159	1872	2,899	1893	15,005	1914	30,7
1852	205	1873	3,832	1894	15,627	1915	34,8
1853	506	1874	4,331	1895	15,977	1916	36,9
1854	764	1875	4,804	1896	16,270	1917	38,3
1855	877	1876	5,218	1897	16,550	1918	38,2
1856	1,414	1877	5,782	1898	16,870	1919	38,3
1857	1,444	1878	6,226	1899	17,250	1919	38,4
1858	1,863	1879	6,858	1900	17,657	1920	38,8
1859	1,994	1880	7,194	1901	18,140	1921	39,1
1860	2,065	1881	7,331	1902	18,714	1922	39,3
1861	2,146	1882	8,697	1903	18,988	1923	39,6
1862	2,189	1883	9,577	1904	19,431	1924	40,0
1863	2,189	1884	10,273	1905	20,487	1925	40,3
1864	2,189	1885	10,773	1906	21,423	1926	40,3
1865	2,240	1886	11,793	1907	22,446	1927	40,5
1866	2,278	1887	12,184	1908	22,966		
1867	2,278	1888	12,163	1909	24,104		

[1]From Slason Thompson's Railway Statistics of the United States of America, 1927, pp. 50-52.

During the year 1927, 315 miles of new line were opened for operations, but owing to the shortening, abandoning and reclassification of lines and the leasing of track to electric lines, the net increase was only 220 miles. In addition, 878 miles were under contract at the close of the year, 78 miles of projected line had been surveyed and 243 miles of line had been completed but were not yet in operation. Construction was most active in the provinces of Quebec, Alberta and Saskatchewan, as will be seen from Table 2.

2.—Steam Railway Mileage, by Provinces, Dec. 31, 1919-1927.

Provinces.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.
	miles.	miles.	miles.	miles.	miles.	miles.	miles.	miles.	miles.
Prince Edward Island	279	279	279	278	277	276	276	276	276
Nova Scotia	1,435	1,438	1,452	1,451	1,447	1,427	1,427	1,426	1,424
New Brunswick	1,993	1,816	1,948	1,948	1,947	1,942	1,935	1,935	1,935
Quebec	4,877	4,941	4,971	4,920	4,919	4,882	4,797	4,767	4,859
Ontario	10,987	11,001	10,976	10,940	10,957	10,947	10,908	10,870	10,834
Manitoba	4,193	4,403	4,417	4,527	4,521	4,520	4,540	4,296	4,293
Saskatchewan	6,141	6,220	6,296	6,438	6,518	6,942	7,056	7,268	7,358
Alberta	4,354	4,474	4,557	4,567	4,784	4,818	4,965	5,048	5,139
British Columbia	3,892	3,916	3,968	3,960	3,966	3,976	4,117	4,072	4,060
Yukon	100	69	58	58	58	58	58	58	58
In United States	244	249	270	273	273	273	273	336	336
Total	**38,496**	**38,806**	**39,192**	**39,360**	**39,665**	**40,061**	**40,352**	**40,353**	**40,572**

Capital Liability.—The capital liability of the steam railways of Canada is shown in Table 3 for the years 1876 to 1927. The great increase after 1922 is due to the inclusion of all Government loans to railways and investment in road and equipment of Government railways as part of the capital liability of the railways. Statistics of individual lines are given in Table 4.

3.—Capital Liability of Steam Railways, June 30, 1901-1919, and Dec. 31, 1919-1927.

NOTE.—Corresponding figures for each year from 1876 to 1900 inclusive are given on p. 649 of the 1927-28 Year Book.

Years.	Stocks.	Funded Debt.	Total.	Years.	Stocks.	Funded Debt.	Total.
	$	$	$		$	$	$
1901	424,414,314	391,696,523	816,110,837	1916	1,024,264,325	868,861,449	1,893,125,774
1902	460,401,863	404,806,847	865,208,710	1917	1,089,114,875	896,005,116	1,985,119,991
1903	483,770,312	424,100,762	907,871,074	1918	1,093,885,495	905,994,999	1,999,880,494
1904	492,752,530	449,114,035	941,866,565	1919	1,100,301,195	914,823,515	2,015,124,710
1905	526,353,951	465,543,967	991,897,918	1919	1,104,409,122	931,756,484	2,036,165,606
1906	561,655,395	504,226,234	1,065,881,629	1920	1,323,705,962	846,324,166	2,170,030,128
1907	588,568,591	583,369,217	1,171,937,808	1921	1,372,545,165	792,142,471	2,164,687,636
1908	607,891,349	631,869,664	1,239,761,013	1922	1,415,623,322	743,653,809	2,159,277,131
1909	647,534,647	660,946,769	1,308,481,416	1923	1,385,080,426	1,879,593,612[1]	3,264,674,038[1]
1910	687,557,387	722,740,300	1,410,297,687	1924	1,401,263,285	2,012,602,328[1]	3,413,865,613[1]
1911	749,207,687	779,481,514	1,528,689,201	1925	1,378,706,860	2,092,374,049[1]	3,471,080,909[1]
1912	770,459,351	818,478,175	1,588,937,526	1926	1,381,762,345	2,179,186,587[1]	3,560,948,932[1]
1913	918,573,740	613,256,952	1,531,830,692	1927	1,350,249,167	2,287,588,330[1]	3,637,837,497[1]
1914	1,026,418,123	782,402,638	1,808,820,761				
1915	1,024,085,983	851,724,905	1,875,810,888				

[1]Includes all Government loans to railways and investment in road and equipment of Dominion and Provincial railways.

4.—Mileage, Capital Liability, Earnings and Operating Expenses of Individual Steam Railways for the calendar year 1927.

Names of Railways.	Single Track Mileage.	Capital Liability.	Gross Earnings from Operation.	Operating Expenses.
	Miles.	$	$	$
Alberta and Great Waterways	304·89	10,941,456	288,976	274,0
Algoma Central and Hudson Bay	324·00	25,391,513	2,021,600	1,834,2
Algoma Eastern	88·52	5,226,500	808,574	545,8
Alma and Jonquière	10·60	629,800	96,565	71,2
Atlantic, Quebec and Western	104·31	6,598,675	241,940	262,2
Brandon, Sask. and Hudson Bay	84·70	2,150,000	97,841	129,7
British Yukon	90·32	4,978,879	190,780	128,0
Burrard Inlet Tunnel and Bridge Co	–	1,502,500	–	–
Canada and Gulf Terminal	38·10	1,740,000	122,856	93,2
Canada Southern	381·04	37,630,000	23,275,972	13,853,7
Canadian National	17,751·69[1]	–	215,432,357	183,932,
" " Eastern Lines	3,108·04[1]	–	12,128,570	14,713,3
" " Total	20,859·73[1]	2,524,268,794[2]	227,560,927	198,646,7
Canadian Pacific	14,170·20	732,266,461[2]	201,805,486	159,060,2
Central Canada	86·61	3,956,724	78,640	168,0
Central Vermont	25·33[1]	2,161,415[3]	294,632	278,5
Crow's Nest Southern	53·01	4,295,000	173,032	132,8
Cumberland Railway and Coal Co	31·29	1,321,268	178,938	149,8
Detroit River Tunnel Co	3·26	21,000,000	–	–
Dominion Atlantic	304·54	8,431,500	1,726,066	1,548,7
Eastern British Columbia	13·04	420,000	70,590	79,8
Edmonton, Dunvegan and British Columbia	428·04	14,284,338	1,321,069	1,180,5
Esquimalt and Nanaimo	209·70	7,332,000	1,673,870	1,083,4
Essex Terminal	21·00	1,120,000	293,322	192,0
Fredericton and Grand Lake Coal and Ry. Co.	31·10	605,000	111,346	70,5
Greater Winnipeg Water District	92·00	1,807,488	88,141	89,2
International Bridge and Terminal Co	1·06	300,000	–	–
Kent Northern	27·00	60,799	29,438	33,2
Kettle Valley	404·70	15,960,000	2,003,045	1,509,9
Lacombe and North Western	71·56	2,696,015	83,556	76,2
Maine Central	5·10	99,359	18,423	21,0
Manitoba Great Northern	[5]	2,066,000	8,283	16,6
Maritime Coal, Railway and Power Co	16·40	3,755,100	113,473	73,0
Massawippi Valley	[6]	800,000	–	–
Midland Railway of Manitoba	75·76	4,800,000	456,907	491,2
Montreal and Atlantic	184·60	5,518,000[2]	1,585,868	1,609,0
Morrissey, Fernie and Michel	6·15	1,263,000	134,338	97,6
Napierville Junction	42·99	600,000	687,696	358,6
Nelson and Fort Sheppard	60·79	2,846,800	98,178	107,3
New Brunswick Coal and Railway Co	59·20	1,598,745	45,090	91,1
Nipissing Central[4]	58·60	–	116,556	126,9
Ottawa and New York	58·77	2,100,000	293,499	391,7
Pacific Great Eastern	360·80	56,679,867	474,396	664,6
Pembina Valley	26·51	775,000	3,690	6,0
Père Marquette (including L.E.D.R.)	336·88	7,400,000	5,462,231	3,118,9
Quebec Central	359·35	11,475,010	3,340,322	2,553,5
Quebec, Montreal and Southern	198·83	7,000,000	673,246	837,9
Quebec Oriental	98·15	2,284,702	340,707	280,0
Quebec Railway, Light and Power Co	25·55	5,806,030	698,351	497,9
Roberval-Saguenay	41·82	3,330,000	503,595	373,4
Rutland and Noyan	3·36	200,000	5,089	8,1
St. Lawrence and Adirondack	60·26	2,815,000	1,041,211	805,3
St. John Bridge and Ry. Extension	[7]	433,900	–	
Sydney and Louisburg	76·97	4,469,044	1,783,393	1,204,8
Temiscouata	113·25	3,856,336	416,629	330,1
Temiskaming and Northern Ontario[4]	388·50	32,034,479	5,149,260	3,737,0
Thousand Islands	6·08	60,000	85,250	74,1
Toronto, Hamilton and Buffalo	111·03	10,695,000	3,399,026	2,132,4
Van Buren Bridge Co	0·36	500,000	–	
Vancouver, Victoria and Eastern	285·38	23,500,000	704,737	684,3
Wabash (in Canada)	245·40	–	6,787,561	5,459,3
Total (including trackage rights duplications)	**41,566·49**	**3,637,837,497**	**499,064,207**	**407,646,**
Canadian National (Can. and U.S.)	22,199·03	–	268,704,294	229,175,

[1]Canadian lines only. [2]Including capital of leased lines. [3]Including only capital of lines leased Canada. [4]Constructed and operated by Ontario Government Railway Commission. [5]Included w Brandon, Sask. and Hudson Bay. [6]Included with Quebec Central. [7]Included with Canadian Pacific.

Summary of Traffic Statistics.—A summary of freight and passenger traffic statistics and of the ratio of operating expenses to gross earnings, continuing a series which has been compiled since 1875, will be found for the years 1911 to 1926 in Table 5. This table has, however, the great defect that its figures of passengers and freight carried are not comparable throughout, but have been reduced as a result of the consolidation of railways. Better tests of the real volume of passenger and freight traffic are supplied in Table 8 of this chapter under the headings "Passengers carried one mile" and "Freight carried one mile". These records, commencing in 1914, show that the maximum volume of passenger traffic was reached in 1919 and the maximum volume of freight traffic in 1927. Both freight and passenger traffic have in recent years been affected by the increase in the use of motor vehicles for purposes of transportation.

The statistics of gross earnings and operating expenses illustrate the difficulties confronting our railways in recent years. Before the war it was generally held that, on account of the enormous initial investment required in roadbed and equipment, a railway's operating expenses should not exceed about two-thirds or 70 p.c. of its gross earnings, the remainder being required to meet interest on capital invested, whether in stocks or bonds, as well as to provide for necessary improvements. The ratio of operating expenses to gross earnings is called the operating ratio, and in 1913 the Canadian operating ratio was 70·90 p.c. The new conditions of the war period, especially the higher cost of labour and of fuel, swelled the operating ratio in spite of advances in freight and passenger rates until in 1920 it reached 97·18 p.c., since when there has been a gradual decline to a ratio of 78·91 in 1926. In 1927 the operating ratio increased again to 81·68 p.c. While gross earnings increased by $5,464,000, due to increased traffic, operating expenses increased by $18,143,000, resulting in a decrease of $12,678,000 in net operating revenues for 1927.

In Table 6 will be found an analysis of the distribution of the operating expenses of steam railways for the last four years, the 1927 figures showing considerable increases compared with 1926, due to increased volume of traffic, and also an increased expenditure on way and structures and equipment. The earnings and operating expenses per mile of line and per train mile are analysed in Table 7.

5.—Summary of Steam Railway Statistics of Freight and Passenger Traffic, and Ratio of Expenses to Earnings, years ended June 30, 1911-1919, and calendar years 1919-1927.

NOTE.—These statistics were published for the years 1875-1910 on p. 434 of the 1916-17 Year Book, and for 1901-1910 on p. 591 of the 1926 Year Book.

Years.	Miles in operation.	Total train miles.	Passengers carried.	Freight carried.	Gross Earnings.	Operating Expenses.	Ratio of expenses to receipts.
	No.	No.	No.	Tons.	$	$	p.c.
1911	25,400	89,716,533	37,097,718	79,884,282	188,733,494	131,034,785	69·43
1912	26,727	100,930,271	41,124,181	89,444,331	219,403,753	150,726,540	68·70
1913	29,304	113,437,208	46,185,968	106,992,710	250,702,703	182,011,690	70·90
1914	30,795	107,895,272	46,702,280	101,393,989	243,083,539	178,975,259	73·63
1915	35,582	93,218,479	46,322,035	87,204,838	199,843,072	147,731,099	73·92
1916	37,434	111,075,890	43,503,459	100,659,088	261,888,654	180,542,259	68·94
1917	38,604	115,797,100	48,106,530	121,916,272	310,771,479	222,890,637	71·72
1918	38,484	109,857,560	44,948,638	127,543,687	330,220,150	273,955,436	82·96
1919	38,501	103,832,835	43,754,194	116,699,572	382,976,901	341,866,509	89·27
1919 (Dec. 31)	38,663	107,053,735	47,940,456	111,487,780	408,598,361	376,789,093	92·26
1920 (")	38,976	117,384,819	51,318,422	127,429,154	492,101,104	478,248,154	97·18
1921 (")	39,363	104,652,167	46,793,251	103,131,132	458,008,891	422,581,205	92·25
1922 (")	39,360	107,625,144	44,383,620	108,530,518	440,687,128	393,927,406	89·39
1923 (")	39,665	114,010,668	44,834,337	118,289,604	478,338,047	413,862,818	86·52
1924 (")	40,061	110,134,782	42,921,809	106,429,355	445,923,877	382,483,908	85·77
1925 (")	40,352	109,388,725	41,458,084	109,850,925	455,297,288	372,149,656	81·70
1926 (")	40,353	113,538,876	42,686,166	122,476,822	493,599,754	389,503,452	78·91
1927 (")	40,572	116,895,751	41,840,550	125,967,439	499,064,207	407,646,280	81·68

6.—Distribution of Operating Expenses of Steam Railways for the calendar years 1924-1927.

Items of Expenditure.	1924.		1925.		1926.		1927.	
	$	p.c.	$	p.c.	$	p.c.	$	p.c.
Way and structures	78,051,798	20·41	74,015,637	19·89	81,095,525	20·82	86,436,213	21·2
Equipment	85,107,990	22·25	86,120,493	23·15	91,824,825	23·58	93,801,950	23·0
Traffic expenses	15,219,062	3·98	15,380,361	4·13	16,113,495	4·14	17,668,103	4·3
Transportation	187,813,639	49·10	180,875,593	48·60	184,027,865	47·24	192,241,574	47·1
General expenses	16,291,419	4·26	15,757,572	4·23	16,441,742	4·22	17,498,440	4·2
Total	382,483,908	100·00	372,149,656	100·00	389,503,452	100·00	407,646,280	100·0

7.—Earnings and Operating Expenses of Steam Railways per mile of line and per train mile, for the years ended June 30, 1914-19, and the calendar years 1919-27.

Years.	Gross earnings.	Operating expenses.	Net earnings.	Gross earnings.	Operating expenses.
	Per mile of line.			Per train mile.	
	$	$	$	$	$
1914	7,894	5,812	2,082	2·253	1·6
1915	5,616	4,152	1,465	2·144	1·5
1916	6,943	4,823	2,120	2·358	1·6
1917	8,051	5,774	2,277	2·683	1·9
1918	8,581	7,119	1,462	3·006	2·5
1919	9,947	8,879	1,068	3·683	3·2
1919 (Dec. 31)	10,568	9,745	823	3·817	3·5
1920 (")	12,626	12,270	356	4·192	4·0
1921 (")	11,636	10,735	901	4·376	4·0
1922 (")	11,196	10,008	1,188	4·095	3·6
1923 (")	12,059	10,434	1,625	4·196	3·6
1924 (")	11,131	9,548	1,583	4·049	3·4
1925 (")	11,283	9,222	2,061	4·162	3·4
1926 (")	12,232	9,653	2,579	4·347	3·4
1927 (")	12,301	10,047	2,253	4·269	3·4

A summary analysis of passenger and freight traffic statistics for recent years is given in Table 8, showing among other things a decline in average receipts per passenger per mile from 3·036 cents in 1921 to 2·690 cents in 1927, and a decline in the average number of passengers per train from 70 in 1919 and 64 in 1920 to 56 in 1927. Similarly, freight traffic statistics show a reduction in freight receipts per ton per mile from 1·200 cents in 1921 to 0·987 cents in 1923 and 1·029 cents in 1927. In this table there should also be noted the tendency toward an increase in the average length of the freight haul and an increase in the average train load from 353 tons in 1914 to 504 tons in 1927. As a result, the revenue earned per freight train mile also increased. Both of these averages are largely affected by the volume of grain handled.

8.—Summary Analysis of Statistics of Passenger and Freight Services and Receipts, 1914-1927.

PASSENGERS.

Years ended June 30.	Passengers carried.	Passengers carried one mile.	Passengers carried one mile per mile of line.	Average receipts per passenger per mile.
	No.	No.	No.	cents.
1914	46,702,280	3,089,031,194	100,309	2·0
1915	46,322,035	2,483,708,745	69,802	2·0
1916	43,503,459	2,727,122,648	72,611	1·9
1917	48,106,530	3,150,127,428	79,829	1·9
1918	44,948,638	3,161,082,402	82,140	2·1
1919	43,754,194	3,074,664,369	79,859	2·5
1919 (Dec. 31)	47,940,456	3,658,492,716	94,625	2·6
1920 (")	51,318,422	3,522,494,856	90,376	2·9
1921 (")	46,793,251	2,960,583,955	75,219	3·0
1922 (")	44,383,620	2,814,113,531	71,497	2·8
1923 (")	44,834,337	3,076,341,444	77,558	2·7
1924 (")	42,921,809	2,872,333,579	71,699	2·7
1925 (")	41,458,084	2,910,760,047	72,134	2·6
1926 (")	42,686,166	2,998,952,309	74,320	2·7
1927 (")	41,840,550	3,051,784,039	75,219	2·6

8.—Summary Analysis of Statistics of Passenger and Freight Services and Receipts, 1914-1927—concluded.

PASSENGERS—concluded.

Years ended June 30.	Average receipts per passenger.	Average passenger journey in miles.	Average number of passengers per train.	Passenger revenue per passenger train mile.
	$	miles.	No.	$
1914	1·328	66	59	1·185
1915	1·083	54	50	1·016
1916	1·083	55	53	1·042
1917	1·140	59	59	1·160
1918	1·492	70	64	1·709
1919	1·796	70	63	2·012
1919 (Dec. 31)	2·008	76	70	2·259
1920 (")	2·002	68	64	2·360
1921 (")	1·921	63	57	2·300
1922 (")	1·790	63	55	2·100
1923 (")	1·900	69	58	2·270
1924 (")	1·870	67	53	2·130
1925 (")	1·890	70	55	2·120
1926 (")	1·900	70	56	2·210
1927 (")	1·960	73	56	2·190

FREIGHT.

Years ended June 30.	Freight carried.[1]	Freight carried one mile.	Freight carried one mile per mile of line.	Freight receipts per ton per mile.
	tons.	tons.	tons.	cents.
1914	81,490,666	22,063,294,685	716,359	0·742
1915	71,498,170	17,661,309,723	496,355	0·751
1916	89,237,156	28,195,364,264	753,202	0·653
1917	98,464,694	31,186,707,851	807,948	0·690
1918	102,425,410	31,029,072,279	806,285	0·736
1919	95,202,121	27,724,397,202	720,096	0·962
1919 (Dec. 31)	91,349,595	26,950,598,322	697,064	1·003
1920 (")	100,050,046	31,894,411,479	818,309	1·071
1921 (")	83,730,829	26,621,630,554	676,311	1·200
1922 (")	87,309,036	30,367,885,883	771,542	1·039
1923 (")	102,258,933	34,067,658,527	858,884	0·987
1924 (")	91,599,639	30,513,819,106	761,684	1·019
1925 (")	94,624,599	31,965,204,683	792,159	1·012
1926 (")	105,221,906	34,153,466,033	846,388	1·043
1927 (")	106,011,355	34,901,652,515	860,240	1·029

Years ended June 30.	Receipts per ton hauled.	Average length of freight haul in miles.	Average train load in net tons.	Average load per loaded car mile.	Revenue per freight train mile.
	$	miles.	tons.	tons.	$
1914	1·614	217	353	19·18	2·619
1915	1·520	202	344	18·43	2·279
1916	1·679	257	411	20·91	2·686
1917	1·766	256	436	22·24	3·006
1918	1·789	243	457	23·10	3·359
1919	2·286	238	442	23·46	4·256
1919 (Dec. 31)	2·427	242	434	22·21	4·358
1920 (")	2·680	250	457	23·05	4·892
1921 (")	3·100	258	447	22·12	5·370
1922 (")	2·910	280	481	23·03	5·000
1923 (")	2·840	288	502	23·42	4·950
1924 (")	2·920	287	483	22·77	4·920
1925 (")	2·950	291	507	22·55	5·130
1926 (")	2·910	279	508	22·36	5·300
1927 (")	2·850	277	504	22·48	5·190

[1]Duplications eliminated.

Railway Wages and Salaries.—The number of railway employees and the amount of their remuneration are naturally affected by the volume of traffic, which tends to rise in periods of active business conditions and fall in times of depression. The volume of traffic is also very directly affected by the size of the grain crops in the West. Thus in Table 9 it may be observed that the number of employees reached a maximum in 1920, a year of great business activity, and since then has been highest in the year 1923, when the crops were very large. The number of employees for 1927 shows only a small increase over 1926, and, when allowance is made for the change in the classification, a decrease from 1923 and 1924.

The amount of salaries and wages reached a maximum in 1920, but, as will be seen from Table 9, the wage bill increased from 1914 to 1920 to a much greater extent than the number of employees, *viz.*, by 160 p.c., while employees increased by only 16 p.c. Since 1920 there has been a slight recession in the wage level, for in 1927, when the figures are made comparable with those of previous years, there were 10 p.c. fewer employees than in 1920, while the wage bill had dropped 12 p.c. But salaries and wages still absorbed 53·51 cents out of every dollar of gross earnings as compared with 45·97 cents in 1914.

9.—Number of Steam Railway Employees, Amount of Salaries and Wages and Ratios of the latter to Gross Earnings and Operating Expenses, for years ended June 30 1914-1919, and for calendar years, 1919-1927.

Years ended June 30.	Employees.	Salaries and wages.	Ratio to gross earnings.	Ratio to operating expenses.
	No.	$	p.c.	p.c.
1914	159,142	111,762,972	45·97	62·4
1915	124,142	90,215,727	45·15	61·9
1916	144,770	104,300,647	39·82	57·9
1917	146,175	129,626,187	41·85	58·3
1918	143,493	152,274,953	46·14	55·5
1919	158,777	208,939,995	54·56	61·1
1919 (Dec. 31)	173,728	233,323,074	57·10	61·9
1920 (")	185,177	290,510,518	59·04	60·7
1921 (")	167,627	247,756,138	54·09	58·6
1922 (")	165,635	233,294,040	52·94	59·2
1923 (")	178,052	253,320,005	52·96	61·2
1924 (")	169,970	239,864,265	53·79	62·7
1925 (")	166,027	237,755,752	52·25	63·2
1926 (")	174,266[1]	253,412,424[1]	51·37[1]	65·0
1927 (")	176,338[1]	267,067,048[1]	53·51[1]	65·5

[1]Owing to changes in classification, the figures for 1926 and 1927 include 8,792 and 8,360 employees respectively with salaries and wages of $9,075,602 and $8,391,797, engaged in outside operations and in classes not included prior to 1926. The ratio percentages are also affected by this change.

Mileage and Rolling Stock.—Statistics of the mileage and the rolling stock of the steam railways of Canada are given for the last seven years in Table **10.** The figures given may be supplemented by the statement that between 1920 and 1927 the average capacity of box cars increased from 34·779 tons to 36·678 tons, of flat cars from 33·459 to 35·680 tons, and of all freight cars from 35·141 tons to 37·04 tons. The average tractive power of the locomotives in use in 1920 was 31,11 lb. and in 1927, 34,689 lb. Of the locomotives in use in 1927, 42 were electric, while motor passenger cars numbered 65.

10.—Mileage and Rolling Stock of Steam Railways, calendar years 1921-1927.

Mileage and Equipment.	1921.	1922.	1923.	1924.	1925.	1926.	1927.
Mileage and Engines.	No.	No.	No.	No.	No.	No.	No.
Miles in operation (single track)	39,192	39,360	39,665	40,061	40,352	40,353	40,572
Miles of sidings	9,755	9,892	9,680	10,012	9,579	9,716	9,887
Miles of industrial track	–	–	–	–	1,555	1,591	1,611
Miles of double track	2,629	2,608	2,591	2,619	2,615	2,620	2,647
Engines in use	6,027	5,955	5,897	5,857	5,752	5,679	5,670
Passenger Cars.							
First class	2,218	2,057	1,968	1,981	1,960	1,968	1,968
Second class	552	514	429	419	426	409	406
Combination	350	348	424	426	430	398	545
Immigrant	677	697	704	703	704	668	668
Dining	223	209	194	196	198	198	207
Parlour	173	191	223	243	249	255	262
Sleeping	645	640	675	819	822	893	956
Baggage, express and postal	1,807	1,803	1,859	1,855	1,843	1,850	1,687
Motor cars	–	28	28	42	57	60	65
Other	122	310	281	165	150	149	158
Freight Cars.							
Box	161,259	158,622	159,276	155,656	154,527	150,499	151,232
Flat	24,391	24,186	23,321	22,748	22,308	21,631	21,018
Stock	12,585	11,542	12,204	12,335	12,025	11,746	11,656
Coal	20,079	20,557	22,854	23,486	23,445	23,663	23,551
Tank	413	405	438	453	466	456	462
Refrigerator	7,012	6,463	6,504	6,329	6,286	6,616	6,802
Other	5,824	6,800	5,017	5,156	5,170	6,644	6,062

Commodities hauled.—Statistics of the commodities hauled in the years 1923-1927, show that in 1927 there was an increase over 1926 of 789,449 tons in the total hauled (Table **11**). This was a new record for Canadian railways, being close to 4,000,000 tons more than in 1918 or 1923 and 6,000,000 tons more than in 1920, the highest previous years. Forest products contributed 676,385 tons of this increase, pulpwood being particularly heavy, but agricultural products increased by only 41,503 tons. Clay, gravel, sand, crushed stone, asphalt and refined petroleum and its products, largely gasolene, all showed substantial increases due to the requirements of automobiles and roads. The decrease in shipments of automobiles was all in the United States traffic passing through Canada.

11.—Commodities hauled as Freight on Steam Railways during the calendar years 1923-1927.

NOTE.—In this table duplications are eliminated, *i.e.*, the same freight handled by two or more railways is counted only once. In this respect these figures differ from those in the similar table in the 1926 and previous Year Books, and also from those of Table 5 in this chapter.

Products.	1923.	1924.	1925.	1926.	1927.
Agricultural Products—	tons.	tons.	tons.	tons.	tons.
Wheat	12,307,178	10,093,223	11,544,921	11,866,705	12,295,949
Corn	875,156	665,996	605,108	683,330	751,924
Oats	1,910,011	2,193,245	1,797,319	1,533,970	1,170,675
Barley	611,915	888,393	1,090,653	1,089,949	994,794
Rye	261,173	424,461	213,526	239,520	531,681
Flax	130,804	206,588	208,809	170,445	134,303
Other grain	102,510	90,571	103,500	112,747	102,601
Flour	2,523,578	2,498,955	2,264,128	2,355,056	2,359,657
Other mill products	1,480,967	1,695,207	1,630,834	1,836,571	1,884,778
Hay and straw	878,765	934,639	781,700	953,387	689,722
Cotton	142,030	109,653	165,244	158,267	149,221
Apples (fresh)	338,512	300,444	281,817	296,829	244,000
Other fruit (fresh)	382,648	496,805	474,587	535,541	531,811
Potatoes	501,936	522,603	624,830	674,991	717,737
Other fresh vegetables	208,960	261,747	282,363	276,100	298,401
Other agricultural products	579,610	671,443	705,754	765,508	733,165
Total	**23,235,753**	**22,053,973**	**22,775,993**	**23,548,916**	**23,590,419**

11.—Commodities hauled as Freight on Steam Railways during the calendar years 1923-1927—concluded.

Products.	1923.	1924.	1925.	1926.	1927.
Animal products—					
Horses	79,430	86,281	80,743	89,224	92,914
Cattle and calves	714,420	701,849	708,672	694,373	666,259
Sheep	53,374	61,169	62,139	64,850	70,329
Hogs	270,222	348,073	368,781	334,169	348,388
Dressed meats (fresh)	654,316	613,460	526,991	488,925	477,790
Dressed meats (cured or salted)	249,236	290,124	318,506	324,999	272,790
Other packing house products	346,187	342,973	289,739	249,982	248,662
Poultry	90,536	86,354	79,114	93,257	93,780
Eggs	162,292	152,539	158,618	162,135	168,598
Butter and cheese	247,799	265,169	288,464	300,112	277,691
Wool	60,352	60,212	53,453	56,773	58,553
Hides and leather	187,042	166,338	173,523	171,191	185,265
Other animal products	115,383	114,549	106,307	101,955	104,625
Total	**3,230,589**	**3,289,090**	**3,215,650**	**3,131,945**	**3,065,556**
Mineral Products—					
Anthracite coal	7,469,506	5,566,972	4,671,262	5,572,730	4,552,095
Bituminous coal	18,235,940	14,435,856	13,658,438	14,525,052	14,327,884
Lignite coal	338,555	386,277	360,077	2,746,285	2,958,916
Coke	1,004,753	755,608	1,231,360	1,412,647	1,230,318
Iron ore	585,909	145,173	443,316	587,337	512,578
Other ores and concentrates	2,130,069	2,150,417	2,400,002	3,249,471	3,278,901
Base bullion and matte	89,056	116,950	127,388	97,750	85,536
Clay, gravel, sand, stone (crushed)	4,368,124	4,621,754	5,129,861	6,454,541	7,193,841
Slate, dimension or block stone	898,476	399,111	363,009	358,945	346,519
Crude petroleum	314,186	556,720	431,955	597,774	641,644
Asphaltum	123,113	145,682	200,587	283,511	386,928
Salt	341,215	313,661	353,840	365,812	356,025
Other mineral products	462,177	556,269	659,047	494,185	541,542
Total	**36,361,079**	**30,150,450**	**30,030,142**	**36,746,040**	**36,412,727**
Forest Products—					
Logs, posts, poles, cordwood	3,067,687	2,959,938	2,943,927	3,506,801	3,696,800
Ties	213,843	201,293	159,971	170,038	179,351
Pulpwood	3,890,395	4,082,635	3,773,247	4,111,139	4,821,837
Lumber, timber, box shooks, heading	7,048,467	6,203,228	6,660,412	6,864,011	6,606,332
Other forest products	621,897	517,808	614,048	613,844	637,898
Total	**14,842,289**	**13,964,902**	**14,151,605**	**15,265,833**	**15,942,218**
Manufactures and Miscellaneous—					
Refined petroleum and its products	1,574,358	1,679,068	1,820,215	1,976,456	2,183,613
Sugar	676,592	803,028	744,562	639,394	560,558
Iron—pig and bloom	634,118	368,937	350,595	401,859	371,436
Rails and fastenings	274,026	212,931	122,902	116,129	158,969
Bar and sheet iron—Structural iron and iron pipe	1,655,763	1,018,315	1,333,646	1,560,885	1,487,998
Castings, machinery and boilers	622,243	480,497	566,155	663,753	661,030
Cement	1,112,944	1,059,479	1,101,135	1,160,063	1,333,256
Brick and artificial stone	942,633	811,945	867,373	935,649	956,660
Lime and plaster	436,344	371,317	446,771	412,529	441,908
Sewer pipe and drain tile	86,407	113,105	98,741	103,556	95,216
Agricultural implements and vehicles other than auto's	279,036	220,427	330,609	423,709	490,147
Automobiles and auto trucks	1,101,683	1,056,032	1,568,091	1,800,791	1,746,285
Household goods	111,844	73,254	80,818	81,012	75,684
Furniture	81,258	77,478	82,876	95,998	110,717
Liquor and beverages	177,572	221,932	253,399	268,700	294,337
Fertilizers, all kinds	273,341	285,181	338,762	332,614	445,355
Paper, printed matter, books	1,771,653	1,764,943	1,932,500	2,124,925	2,315,206
Wood pulp	1,417,265	1,348,725	1,721,326	1,693,673	1,477,852
Fish (fresh, cured, etc.)	110,541	101,889	99,208	117,694	114,993
Canned meats	7,260	5,947	9,268	6,221	11,634
Canned goods (all canned food products other than meat)	337,231	373,758	376,023	390,162	385,202
Other manufactures and miscellaneous	6,916,833	6,014,472	6,179,743	6,800,087	6,749,899
Merchandise	3,939,775	3,638,630	3,975,275	4,423,313	4,532,480
Total	**24,549,720**	**22,101,290**	**24,399,993**	**26,529,172**	**27,000,435**
Grand Total	**102,258,933**[1]	**91,599,639**[1]	**94,624,599**[1]	**105,221,906**	**106,011,355**

[1]Traffic on the Thousand Islands Ry., 48,503 tons in 1923, 39,934 tons in 1924 and 52,716 tons in 1925, is not distributed, but is included in the totals for the respective years.

Government Aid to Private Railways.—In order that the private railways of Canada might be constructed in advance of settlement as colonization roads, or through thinly settled districts where little traffic was available, it was necessary for Dominion, Provincial and even municipal Governments to extend some form of assistance. In our earlier history, when our Governments had plenty of Crown land and little cash, the subsidies granted to railways frequently took the form of land grants, which had the advantage of giving the railway a direct interest in opening up the country, though it sometimes led to the railways holding large tracts of land idle for speculative purposes when intermixed Crown lands had been homesteaded, thus retarding the settlement of agricultural land. Table **12** shows the areas of the land granted as subsidies to steam railway companies by the Dominion and Provincial Governments, with the names of the companies in the case of the Dominion Government. The total area so granted up to Dec. 31, 1927, amounted to 47,184,176 acres.

As the country grew wealthier, the objections to the land grant method became more apparent, and aid was more frequently given in the form of a cash subsidy per mile of line, a loan or a subscription to the shares of the railway. From 1851 up to Dec. 31, 1927, as shown analytically in Table **13**, the total value of such aid granted to steam railways in Canada, exclusive of the capital of two Government railways (I.C.R. and P.E.I.R.), amounted to $225,467,753. Of this sum, $176,693,510 represents aid granted by the Dominion Government, $33,360,615 that granted by the Provincial Governments, and $15,413,628 that granted by municipalities. Table **14** records the details of the most recent type of assistance given to private railways, *viz.*, by the guaranteeing of their bonds or of the interest thereupon. These guarantees enabled the railways receiving them to borrow money, generally from British investors, at rates of interest considerably lower than would otherwise have had to be paid. The total amount outstanding on Dec. 31, 1927, was $580,039,245.

12.—Areas of Land Subsidies granted to Steam Railways by the Dominion[1] and Provincial Governments up to Dec. 31, 1927.

By the Dominion Government.	Acres.
Alberta Railway and Coal Co.	1,101,712
Canadian Pacific Railway Co. (main line)	18,205,610
Calgary and Edmonton Railway Co.	1,819,975
Great North West Central Railway Co.	320,000
Manitoba Northwestern Railway Co.	1,501,376
Manitoba Southwestern Col. Railway Co.	1,396,800
Saskatchewan and Western Railway Co.	98,880
C.P.R.—Souris Branch	1,408,704
C.P.R.—Pipestone Extension, Souris Branch	200,320
Canadian Northern Railway Co.	3,315,599
Manitoba and Southeastern Railway Co.	679,368
Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Co.	1,624,113
Total by Dominion Government	**31,672,457[1]**
By Provincial Governments.	
Nova Scotia	160,000
New Brunswick	1,788,392
Quebec[2]	2,085,710
Ontario	3,241,207
British Columbia	8,233,410[3]
Total by Provincial Governments	**15,508,719[3]**
Total by Dominion and Provincial Governments	**47,181,176[1,3]**

[1]Exclusive of grants for right-of-way purposes. [2]Not including convertible land grants made by the Government of this province. [3]Includes 4,065,076 acres repurchased from B.C. Southern and Columbia and Western railways.

13.—Analysis of the Total Financial Aid given to Steam Railways up to Dec. 31, 1927.

By the Dominion Government.		By Provincial Governments.	
	$		$
Cash subsidies	118,600,799	Cash subsidies	33,060,615
		Subscription to shares	300,000
Loans	15,142,633	**Total**	**33,360,615**
Paid to Quebec Government	5,160,053	By Municipalities.	
Cost of lines handed over to C.P.R.	37,790,025	Cash subsidies	12,988,128
		Subscriptions to shares	2,425,500
		Total	**15,413,628**
Total	**176,693,510**	**Grand Total**	**225,467,753**

14.—Railway Bonds guaranteed by Dominion and Provincial Governments, as at Dec. 31, 1927.

Governments.	Outstanding, Dec. 31, 1927.
	$
New Brunswick	8,236,977
Ontario	7,859,998
Manitoba	24,389,892
Saskatchewan	17,904,062
Alberta	35,488,128
British Columbia	45,186,000
Total by Provincial Governments	**139,065,057**
Dominion Government	440,974,188[1]
Grand Total	**580,039,245**

[1]Does not include $216,207,141 perpetual debenture stock and guaranteed stock of the Grand Trunk Railway, on which interest and dividends are guaranteed by the Dominion Government, nor guaranteed bonds held by the Government.

Railway Accidents.—The number of passengers, employees and others killed and injured in steam railway accidents is given in summary form from 1914 to 1927 in Table **15**, and in a detailed analysis for 1925 to 1927 in Table **16.** Attention is directed to the reduction since 1914 in the number killed and to the increase in the number injured. It is probable that injuries are much more completely reported than in the past, especially in the case of employees, as a result of the recent workmen's compensation legislation of the provinces.

15.—Number of Passengers, Employees and others killed and injured on Steam Railways, years ended June 30, 1914-1919, and calendar years 1919-1927.

NOTE.—For the years 1888 to 1913, see Canada Year Book, 1922-23, page 635.

Years.	Passengers.		Employees.		Others.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1914	27	415	224	3,161	349	463	600	4,039
1915	17	336	115	2,573	247	362	379	3,271
1916	20	309	174	4,332	274	337	468	4,978
1917	24	438	209	4,596	219	401	452	5,435
1918	32	344	178	5,352	200	393	410	6,089
1919	36	307	174	5,432	176	412	386	6,151
1919	34	392	197	6,349	209	476	440	7,217
1920	29	481	167	7,719	197	480	393	8,680
1921	5	259	156	6,583	193	394	354	7,236
1922	11	369	122	8,361	208	517	341	9,247
1923	15	437	167	9,382	165	539	347	10,358
1924	19	432	127	8,862	216	514	362	9,808
1925	5	401	105	8,256	199	642	309	9,299
1926	20	446	127	10,622	312	638	459	11,706
1927	14	589	131	11,057	257	695	402	12,321

16.—Number of Persons killed and injured on Steam Railways in the calendar years 1925-1927.

(A) In Accidents resulting from Movement of Trains, Locomotives or Cars.

Items.	1925.		1926.		1927.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Description of Persons—						
Passengers	5	374	20	375	14	438
Employees	82	2,158	102	2,141	106	1,915
Trespassers	107	131	149	137	138	164
Non-trespassers	91	419	153	410	109	392
Postal clerks, expressmen, etc.	–	13	–	5	1	33
Total	**285**	**3,095**	**424**	**3,068**	**368**	**2,942**
Description of Accident (Employees and Passengers)—						
Coupling and uncoupling	5	167	9	141	9	139
Collisions	5	181	25	122	22	251
Derailments	12	173	10	228	14	149
Parting of trains	1	50	2	25	–	33
Locomotives or cars breaking down	1	18	–	13	–	16
Falling from train or cars	7	272	25	255	20	295
Jumping on or off	12	376	10	319	9	331
Struck by trains, etc.	42	100	32	86	40	131
Overhead obstruction	1	18	2	25	1	18
Other causes	1	1,177	7	1,302	5	990
Total	**87**	**2,532**	**122**	**2,516**	**126**	**2,353**

(B) In Accidents other than those resulting from Movement of Trains, Locomotives or Cars.

Description of Persons.	1925.		1926.		1927.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Stationmen	1	459	1	690	–	697
Shopmen	8	2,344	9	3,621	8	3,166
Trainmen and Trackmen	9	2,169	8	2,684	11	3,194
Other employees	5	1,126	7	1,486	6	2,085
Passengers	–	27	–	71	1	131
Others	1	79	10	86	8	106
Total	**24**	**6,204**	**35**	**8,638**	**34**	**9,379**

Section 3.—Origin and Growth of Government-owned Railways.

Canadian Government Railways.—The Intercolonial railway, built as a condition of Confederation and completed in 1876, and the Prince Edward Island railway, opened in April, 1875, had since their construction been owned and operated by the Dominion Government. In 1903 the Dominion Government undertook the construction of the eastern division of the National Transcontinental railway from Moncton, N.B., to Winnipeg, to be leased to the Grand Trunk Pacific Railway Company for a period of 50 years. On the failure of the company to take over the operation of the road when completed in 1915, the Government itself undertook its operation and was also obliged to lease the Lake Superior branch of the Grand Trunk Pacific railway, which, by the above default of the G.T.P. Co., was isolated from the main line. A number of eastern branch lines have been acquired in recent years, including the New Brunswick and Prince Edward Island railway, which forms the mainland connection of the Prince Edward Island car ferry, the International railway, the Moncton and Buctouche railway, the Salisbury and Albert railway, the St. Martin's railway, the Elgin and Havelock railway, the York and Carleton railway, the Quebec and Saguenay railway, the Caraquet and Gulf Shore railway, the Lotbinière and Mégantic railway and the Cape Breton railway. The Saint

John and Quebec railway, in New Brunswick, and the Inverness Railway and Coal Company's lines in Cape Breton, are operated under lease. The Hudson Bay railway, which had 332·5 miles of steel rail at the end of 1920, was declared to be comprised in the Canadian Government railways, and until 1926 was operated to a limited extent by the board of directors of the Canadian National Railways. In that year, as a result of the decision to complete the road, it was returned to the Department of Railways and Canals until completed. The eastern terminus was transferred from Nelson to Churchill, ties and trestles were renewed along the original 332 miles of track, and by April, 1929, the track was extended to Churchill though not yet graded or ballasted. To Dec. 31, 1928, total expenditure on the railway was $23,817,456 and on terminal work at Churchill $3,541,185, exclusive of the expenditures of $6,274,218 on the terminal at Nelson, some of which was salvaged.

Tables **17** and **18**, from the Annual Report of the Department of Railways and Canals, show the capital expenditure of the Dominion Government on the Canadian Government Railways and their operating finances to Mar. 31, 1928. In Table **17** the cost of the Quebec Bridge ($21,706,664), also $18,000 of miscellanous expenditure, are not included in the total of capital expenditure. In Table **18** they are included.

17.—Cost of Construction, Operating Expenses and Revenue of Canadian Government Railways for the fiscal years 1868-1900, 1901-1928, and before Confederation.

NOTE.—For the years 1868 to 1900, see Canada Year Book, 1916-17, page 437.

Years.	Capital Expenditure.	Operating Expenses.	Revenue.	Operating surplus (+) or deficit (−).
	$	$	$	$
Before Confederation	13,881,461	–	–	–
1868-1900	114,091,210	81,391,472	73,226,382	− 8,165,000
1901	3,922,989	5,739,052	5,213,381	− 525,671
1902	5,386,611	5,861,099	5,918,990	+ 57,891
1903	3,083,681	6,474,134	6,584,599	+ 110,465
1904	2,619,060	7,599,959	6,627,256	− 972,703
1905	6,125,482	8,906,154	7,050,892	− 1,855,262
1906	6,102,566	7,893,653	7,950,553	+ 56,900
1907 (9 mos.)	7,174,370	6,328,746	6,509,186	+ 180,440
1908	23,684,005	9,595,295	9,534,569	− 60,726
1909	29,414,227	9,764,587	8,894,420	− 870,167
1910	21,505,976	9,095,904	9,647,964	+ 552,060
1911	24,532,466	10,037,879	10,249,394	+ 211,515
1912	23,108,806	11,074,853	11,034,166	− 40,687
1913	17,375,968	12,499,926	12,442,203	− 57,723
1914	21,628,095	13,559,225	13,394,317	− 164,908
1915	22,115,664	12,474,454	12,149,357	− 325,097
1916	21,153,255	19,407,380	18,427,909	− 979,471
1917	12,003,650	25,795,907	23,539,759	− 2,256,148
1918	34,699,417	33,400,460	27,240,957	− 6,159,503
1919	40,193,181	43,889,026	38,013,726	− 5,875,900
1920	11,593,148	48,194,710	41,402,061	− 6,792,649
1921	5,096,535	43,770,971	36,814,350	− 6,956,621
1922	4,553,638	6,326,800	[2]	− 6,326,801
1923	Cr. 1,052,293	5,695,669	[2]	− 5,695,669
1924	315,944	–	–	–
1925	Cr. 37,499	–	–	–
1926	Cr. 40,580	20,587[3]	–	− 20,587
1927	2,828,344	13,832[3]	–	− 13,832
1928	3,626,946	–	–	–
Total	**480,686,221**[1]	**444,812,335**	**391,866,392**	**−52,945,943**

[1]Less $40,000 received from Saint John city for the Carleton Branch railway=$480,646,221.
[2]Revenue applied against operating expenses.
[3]Expenditure on Port Nelson terminals.

18.—Capital Expenditure on Government Railways to Mar. 31, 1928.

Railways.	Expenditures.
	$
Canadian Government Railways—	
Intercolonial Railway System—	
Canada Eastern Railway	819,000
Cape Breton Railway	3,860,679
Drummond County Railway	1,464,000
Eastern Extension Railway	1,324,043
Montreal and European Railway	333,943
Oxford and New Glasgow Railway	1,949,063
Intercolonial Railway	136,826,448
Total Intercolonial Railway system	146,577,176
New Brunswick and Prince Edward Island Railway	925,267
Prince Edward Island Railway	13,276,674
International Railway of New Brunswick	2,963,022
National Transcontinental Railway	169,303,830
Moncton and Buctouche Railway	293,067
Salisbury and Albert Railway	437,648
St. Martin's Railway	302,046
Elgin and Havelock Railway	135,029
York and Carleton Railway	59,749
Quebec and Saguenay Railway	7,772,911
Caraquet and Gulf Shore Railway	711,767
Lotbinière and Mégantic Railway	360,008
Cape Breton Railway extension	107,647
Hudson Bay Railway	19,970,117
Canadian Government Railways (rolling stock)	35,906,042
Canadian Government Railways (miscellaneous)	345
Quebec Bridge	21,706,664
Miscellaneous suspense	3,862
Total Canadian Government Railways	420,812,873
Other Railways and Miscellaneous—	
Canadian Northern Railway	10,000,000
Annapolis and Digby Railway	660,683
European and North American Railway	88,363
Nova Scotia Railway	208,510
Carleton Branch Railway	48,410
Canadian Pacific Railway	62,791,435
Hudson Bay Railway—Nelson and Churchill terminals	7,137,749
Yukon Territory Works, Stikine-Teslin Railway	283,324
North Railway	250,000
Governor-General's Cars	71,539
Miscellaneous expenditure	18,000
Grand Total Capital Expenditure	**502,370,886**

The Consolidation and Organization of the Canadian National System[1].—In pursuance of an Act of 1917 (7-8 Geo. V, c. 24), the Government acquired the capital stock of the Canadian Northern Railways, with a mileage of 9,566·5. The insolvency of the Grand Trunk Pacific led to the appointment of the Minister of Railways as receiver on Mar. 9, 1919, and in October, 1920, the road was transferred to the Canadian National Railways. The Grand Trunk railway was acquired under c. 13 of the 2nd session of 1919, which provided for arbitration as to the considerations to be given to its shareholders. This arbitration finally disposed of, steps were taken to consolidate the various railways under Government operation and control. In October, 1922, the Grand Trunk board and the Canadian Northern board gave place to a single Canadian National board, to which the former Canadian Government railways were turned over for management and operation. The unification of the Grand Trunk and Canadian National railways was provided for by Order in Council of Jan. 30, 1923, which also brought into effect the Act to incor-

[1]For further details on the acquisition of the Canadian Northern, Grand Trunk Pacific and Grand Trunk Railways by the Dominion Government, see pp. 602-603 of the 1926 Year Book.

porate the Canadian National Railway Company and respecting Canadian National railways (c. 13, 1919). This was followed, on Feb. 5, 1923, by an Order in Council establishing the head office of the Canadian National railways at Montreal, Que.

Operation of the Canadian National Railways.—The Canadian National system steam mileage at Dec. 31, 1927, was 22,199·03. Including the Central Vermont, 433·34, and the Thousand Islands railway, 4·6, controlled by constituent companies but separately operated, the total steam mileage was 22,636·97. Including 190·49 miles of electric lines, the grand total was 22,827·46.

The Maritime Freight Rates Act (17 Geo. V, c. 44), effective July 1, 1927, ordered that the accounts of the Canadian National lines east of Lévis and Diamond Junction, Quebec, be kept separate from those of the remainder of the Canadian National system. These lines were designated as the Eastern Lines of the Canadian National Railway, and the territory, which included Prince Edward Island, Nova Scotia, New Brunswick and a part of Quebec, as the "select territory". The Act also ordered that local and westbound freight rates on the Eastern Lines and freight rates on all eastbound traffic originating on these lines be reduced by 20 p.c. These reductions applied only to rates on the Eastern Lines and not to railways beyond the "select territory". Other railways operating in the "select territory" were allowed to make similar reductions in their freight rates in that territory and to bill on the Board of Railway Commissioners of Canada for the difference in freight receipts due to such reductions. The railways making such reductions included these bills with their revenues and consequently their revenues were not reduced by the change in the rates, but the Eastern Lines included as freight revenue only the amounts of the freight bills. The Act provides that any deficit from the operation of these lines shall be met by a separate appropriation by the Dominion Government. For the six months, July-December, 1927, the Eastern Lines report a loss in revenues due to these reductions in rates of $931,810 and the deficit was therefore increased by that amount. The total paid to privately owned railways under the Act was $421,655 for the six months. The four operating regions of the Canadian National Railway system were somewhat altered in consequence of the Maritime Freight Rates Act and are now divided as follows:—the Eastern Lines, including far the greater part of the former Atlantic region and the lines west to Lévis and Diamond Junction; the Central region, from Lévis and Diamond Junction west to Port Arthur and Armstrong, including the line in the United States to Portland, Maine, a total of 6,919·61 miles; the Western region, including all lines west of Port Arthur and Armstrong, with the Duluth, Winnipeg and Pacific, a total of 10,232·83 miles, and the Grand Trunk Western, the lines in the States of Michigan, Indiana and Illinois, 841·81 miles.

The Quebec bridge across the St. Lawrence above Quebec city, with a main span of 1,800 ft., the longest in the world, and carrying a double track railway and accommodation for pedestrian traffic, forms a connecting link in the Canadian National Railway system and is operated as a part of it.

Table **19** shows some of the more important train traffic statistics of Canadian National railway operation for the years 1926 and 1927 (excluding the Eastern lines and the Central Vermont railway included in the similar table on pp. 663-4 of the 1927-28 Year Book).

19.—Canadian National Railways (Canadian and U.S. Lines) Train Traffic Statistics for the calendar years 1926 and 1927.[2]

Items.	1926[1].	1927[1].
Train Mileage—		
Passenger trains	21,502,914	22,389,609
Freight trains	30,800,219	31,744,709
Mixed trains	3,025,934	3,169,220
Special trains	37,448	36,527
Unit cars	986,860	984,107
Total Train Miles[3]	56,353,375	58,324,172
Car Mileage—		
Passenger—		
Coaches, parlour, sleeping and dining cars	107,389,438	113,424,225
Baggage, mail, express, etc	53,934,277	56,368,754
Total Passenger Train Car Miles[3]	161,323,715	169,792,979
Freight—		
Loaded freight car miles	828,170,775	841,806,702
Empty freight car miles	427,063,095	437,791,135
Caboose miles	32,739,680	34,157,647
Total Freight Train Car Miles[3]	1,287,973,550	1,313,755,484
Passenger Traffic—		
Passengers carried (earning revenue)	19,892,898	18,843,962
Passengers carried (earning revenue) one mile	1,326,251,169	1,374,893,080
Passenger train miles per mile of road	1,096	1,133
Average passenger journey—miles	66·67	72·96
Average amount received per passenger $	1·788	1·915
Average amount received per passenger mile $	0·0268	0·0262
Average number of passengers per train mile	57·62	57·41
Average number of passengers per car mile	13·09	12·91
Revenue from passengers per passenger car mile $	0·3510	0·3387
Total passenger train earnings per train mile $	2·36	2·32
Total passenger revenue per mile of road $	2,648·65	2,689·20
Freight Traffic—		
Tons of revenue freight carried	59,240,518	60,531,058
Tons of revenue freight carried one mile	18,430,954,016	18,587,960,341
Tons of non-revenue freight carried one mile	2,060,822,644	2,328,254,535
Total tons (all classes) freight carried one mile	20,491,776,660	20,916,214,876
Tons of revenue freight carried one mile per mile of road	894,674	895,735
Total tons (all classes) freight carried one mile per mile of road	995,145	1,008,543
Average number of tons revenue freight per train mile	551·09	538·39
Average number of tons (all classes) freight per train mile	612·98	606·19
Average number of tons (all classes) freight per loaded car mile	24·66	24·74
Average haul revenue freight—miles	311·12	307·08
Freight revenue per loaded car mile $	0·23167	0·23001
Freight revenue per train mile $	5·76	5·64
Freight revenue per mile of road $	9,350·24	9,435·74
Freight revenue per ton $	3·23744	3·19739
Freight revenue per ton mile $	0·01041	0·01041

[1]Adjusted to exclude Eastern lines, Central Vermont railway and electric lines.
[2]For detailed statistics of the operation and finances of the Canadian National Railways during 1927 see the annual report of the Department of Railways and Canals for the fiscal year ended Mar. 31, 1928, and Steam Railway Statistics, 1927, published by the Dominion Bureau of Statistics, also the annual report of the railways.
[3]Work service excluded.

Operating Finances of the Canadian National Railways.—In Table 20 "Canadian Lines" include those of the Canadian Northern system, the Grand Trunk railway of Canada, the Grand Trunk Pacific and the Canadian Government railways, and the Hudson Bay railway for 1920 to 1925, but not for 1926 or 1927. The "United States Lines" include those lines known as the New England line, the Grand Trunk Western, and the Duluth, Winnipeg and Pacific. The Hudson Bay railway was returned to the Government while under construction, and appropriations, etc., for it were not included with the 1926 data. The Maritime Freight Rates Act mentioned above necessitated the segregation of the Eastern lines for the last six months of 1927.

Gross revenues, operating expenses and net revenues shown in this table include only those from steam railway operations, but the deficits are for the entire system, including the operating results of the Niagara, St. Catharines and Toronto railway (electric) and other railways operated separately, hotels, commercial telegraphs, coastal steamships and all other outside operations.

This table shows the continued betterment in the operation from 1923 to 1926, when the deficit was reduced from $51,697,675 to $29,701,445. The 1927 operations did not show the same progress, the deficit increasing to $37,637,722 despite an increase of $2,516,468 in gross revenues over 1926. There has been only one year, 1926, in which the system has been able to meet all obligations other than the interest due to the Dominion Government on advances.[3] The Central Vermont, which was previously included in this table, suffered severe damages from floods during the spring of 1927 and was forced into receivership on Dec. 13, consequently its accounts were not included with those of the Canadian National system. For 1927 the Central Vermont showed a deficit of $1,326,017 and the debit balance in the profit and loss account amounted to $6,810,768.

20.—Gross Revenues, Operating Expenses, Net Revenues, Interest on Funded Debt and Annual Deficit of the Canadian National Railways for the calendar years 1923-1927.

Items.	1923.	1924.	1925.	1926.[1]	1927.[1]
	$	$	$	$	$
Gross Railway Operating Revenues—					
Canadian Lines	214,787,207	201,224,493	208,218,921	225,547,852	215,432,357
United States Lines	38,348,281	34,363,689	36,752,282	40,639,974	41,143,367
Total	253,135,488	235,588,182	244,971,203	266,187,826	256,575,724
Eastern Lines (6 months)	.....	.....	.....	.....	12,128,576
Total	253,135,488	235,588,182	244,971,203	266,187,826	268,704,299
Railway Operating Expenses—					
Canadian Lines	202,936,659	189,460,404	184,373,201	190,173,271	183,932,857
United States Lines	29,768,180	28,883,527	28,333,587	29,531,362	30,528,899
Total	232,704,839	218,343,931	212,706,788	219,704,633	214,461,756
Eastern Lines (6 months)	.....	.....	.....	.....	14,713,859
Total	232,704,839	218,343,931	212,706,788	219,704,633	229,175,595
Net Operating Revenues—					
Canadian Lines	11,850,548	11,764,089	23,845,720	35,374,581	31,499,500
United States Lines	8,580,101	5,480,162	8,418,695	11,108,612	10,614,468
Total	20,430,649	17,244,251	32,264,415	46,483,193	42,113,968
Eastern Lines (6 months)	.....	.....	.....	.....	2,585,283
Total	20,430,649	17,244,251	32,264,415	46,483,193	39,528,685
Interest—					
Canadian National—On Funded Debt	65,199,324	69,632,747	71,888,617	71,287,687	72,638,912
Eastern Lines—On Funded Debt (6 months)	.....	.....	.....	.....	392,440
Total	65,199,324	69,632,747	71,888,617	71,287,687	73,031,352
Deficit—					
Canadian National	51,697,675	54,860,419	41,444,764	29,701,445	34,373,052
Eastern Lines (6 months)	.....	.....	.....	.....	3,264,669
Total	51,697,675	54,860,419	41,444,764	29,701,445	37,637,721

[1] Exclusive of Hudson Bay railway which was included in previous years.

[2] Includes a loss in revenues of $931,810 from reduction in rates ordered by the Maritime Freight Rates Act; other railways were reimbursed by the Government for such losses and included these payments with their revenues.

[3] Preliminary figures for 1928 indicate that the 1926 record has been repeated.

The Debt and Interest Charges of the Canadian National Railways.—To define clearly what is included under debt due to the Dominion Government in Table **21**, the appropriations for the Canadian Government railways have been separated from the loans and advances to the remainder of the system. The capital liability to the Dominion Government includes the investments in the Quebec bridge and in the road and equipment of the Canadian Government railways constructed and purchased by the Government (Port Nelson terminals not included and Hudson Bay railway appropriations deducted for 1926), and the operating deficits of these railways for 1921-1925 inclusive but not for previous years, also working capital. The deficits of the Canadian Government railways for 1919 and 1920, amounting to $16,911,366, are included in the deficits shown in Table **22**, but are not included in Table **21**, as they were paid out of the consolidated revenue of Canada. No interest has been charged on appropriations for the Canadian Government railways for any year. Table **21** also includes all loans and advances by the Government to the Canadian National system on notes, bonds and receiver certificates, with accrued simple interest ranging from 3½ p.c. to 6 p.c. These advances have been used to pay operating deficits, interest due to the public, also for construction of new lines, equipment, etc., as shown in Table **22**.

In computing the public debt of Canada the Finance Department considers these railway appropriations and advances in the same way as investments in canals, public works, etc., *i.e.*, as "non-active assets", and as such does not subtract them from the gross debt in computing the net debt; similarly, no interest is charged by the Finance Department on the railway advances, although the railways debit their accounts with the accrued interest.

The debt due to the public includes debenture stock maturing and perpetual, and bonds and mortgages of the constituent railways, but does not include the capital stock of the Grand Trunk railway held by the Government, nor the cost of acquiring the same. Likewise it does not include the capital stock of the Canadian Northern system. The stock of the Grand Trunk Pacific is all held by the Canadian National system and is therefore not included either.

The figures in Tables **21** and **22** do not include any Central Vermont data. Loans and advances received by the Canadian National railways from the Dominion Government and advanced by the Canadian National to the Central Vermont are shown as charges against the Canadian National railways.

The total debt at the end of 1927 was $981,381,736 to the public and $1,258,096,-742 to the Government. In addition to the actual loans and advances by the Government amounting to $595,538,350, this sum of $1,258,096,742 includes not only the unpaid interest of $226,142,005 already referred to, but $436,416,387 spent in the construction and purchase of lines forming the original Canadian Government railways. As the book value of these properties is included on the asset side of the balance sheet, the cost of these roads to the Dominion is included in the liabilities of the system as an offset. The construction or purchase of these roads was financed by the Dominion from the Consolidated Revenue Fund, and while for book-keeping purposes their cost is set up as a system liability, they are not a debt and carry no interest obligation.

The aggregate increase in the principal of the debt during the nine years as shown in Table **21** was $858,273,233, of which $208,417,770 was an increase in debt

due to the public and $649,854,463 in that due to the Government. In Table 2 is presented an analysis of this total increase in capital liability. For the purpose of this table the deficits of the Canadian Government railways in 1919 and 192 amounting to $16,911,366, are included, making the total increase $878,640,132 i nine years. Of this total increase in debt, interest accounts for $419,471,01 operating deficits for $69,534,566, while $399,635,518 was new capital expendit on construction, equipment, etc.

21.—Debt and Interest Charges of Canadian National Railways (including appr riations for Canadian Government Railways), 1919-1927.

PRINCIPAL.[1]

Calendar Years.	Amount Outstanding Dec. 31.					
	Due to Dominion Government.			Due to Public.	Total.	Total Increase during year
	Appropriations for Can. Govt. Railways.	Loans and Advances with Accrued Interest.	Total.			
	$	$	$	$	$	$
1919	407,254,699	274,969,881	682,224,580	801,131,444	1,483,356,024	102,149,
1920	411,704,909	396,744,482	808,449,391	820,550,681	1,629,000,072	145,644,
1921	416,295,596	514,796,282	931,091,878	830,829,449	1,761,921,327	132,921,
1922	415,118,319	601,627,683	1,016,746,002	804,503,144	1,821,249,146	59,327,
1923	447,643,526[2]	666,539,750	1,114,183,276	823,099,056	1,937,282,332	116,033,
1924	451,712,485	690,555,950	1,142,268,435	913,913,083	2,056,181,518	118,899,
1925	453,935,303	734,547,038	1,188,482,341[3]	931,329,303	2,119,811,644	63,630,
1926	437,412,032[3]	788,251,724	1,225,663,756	925,480,244	2,151,144,000	31,332,
1927	436,416,387	821,680,355	1,258,096,742	981,381,736	2,239,478,478	88,334,

INTEREST.

Calendar Years.	Accrued During Year.			Increase During Year.		
	Due to Dominion Govt.	Due to Public.	Total.	Due to Dominion Govt.	Due to Public.	Total.
	$	$	$	$	$	$
1919	9,596,581	28,599,687	38,196,268	3,517,851	669,715	4,187,
1920	14,346,832	31,055,318	45,402,150	4,750,251	2,455,631	7,205,
1921	20,966,782	34,476,014	55,442,796	6,619,950	3,420,696	10,040,
1922	24,912,876	34,652,324	59,565,200	3,946,094	176,310	4,122,
1923	30,157,944	35,041,380	65,199,324	5,245,068	389,056	5,634,
1924	31,271,043	38,361,704	69,632,747	1,113,099	3,320,324	4,433,
1925	31,450,382	40,438,235	71,888,617	179,339	2,076,531	2,255,
1926	32,090,454	39,197,233	71,287,687	640,072	−1,241,002[4]	−600
1927	32,190,649	40,448,274	72,638,923	100,195	378,243	478,

[1] Includes debenture stock of Canadian Northern System, Grand Trunk and Grand Trunk Pacific cost of constructing Canadian Government railways, but excludes capital stock, which on Dec. 31, 1 amounted to $270,220,749, of which $265,628,339 was owned by the Dominion Government and $4,594 was held by others.

[2] Includes operating deficits 1921-1922-1923 and working capital of Canadian Government railways.

[3] Reduced on account of the Hudson Bay railway being returned to Canadian Government while un construction, and by repayments to Dominion Government, account of Canadian Government railway

[4] Interest on 4 p.c. Grand Trunk Pacific debentures reduced by $1,046,378, under agreement with bo holders.

2.—Analysis of the Increase in the Debt of the Canadian National Railways, calendar years, 1919-1927.

Calendar Years.	Interest accrued during year.	Deficits including accrued interest.	Increase in Principal of Debt.	Debt Increase applied to		
				Interest not paid by operating revenue.	Operating Deficits.	Capital Expenditure.[1]
	$	$	$	$	$	$
1919	38,196,268	55,358,075	102,149,779	38,196,268	17,161,807	–
Deficit of C.G.R.	–	–	7,133,296	–	–	–
	–	–	109,283,075	–	–	53,925,000
1920	45,402,150	80,478,828	145,644,048	45,402,150	35,076,678	–
Deficit of C.G.R.	–	–	9,778,070	–	–	–
	–	–	155,422,118	–	–	74,943,290
1921	55,442,796	69,866,589	132,921,255	55,442,796	14,423,793	63,054,666
1922	59,565,200	57,960,097	59,327,819	57,960,097	–	1,367,722
1923	65,199,324	51,697,675	116,033,186	51,697,675	–	64,335,511
1924	69,632,747	54,860,419	118,899,186	54,860,419	–	64,038,767
1925	71,888,617	41,444,764	63,630,126	41,444,764	–	22,185,362
1926	71,287,687	29,701,445	31,332,356[2]	29,701,445	–	1,630,911
1927	72,638,923	34,373,027	88,334,478	34,373,027	–	53,961,451
Total (without Eastern Lines)	549,253,712	475,740,919	875,183,599	409,078,641	66,662,278	399,442,680
1927. Eastern Lines	392,407	3,264,695	3,457,533[4]	392,407	2,872,288[3]	192,838
Totals	**549,646,119**	**479,005,614**	**878,641,132[3]**	**409,471,048**	**69,534,566[3]**	**399,635,518**

[1] Includes cost of new lines and equipment (other than renewals), additions and betterments, discounts n bonds issued, investments in miscellaneous properties, working capital, etc.

[2] Allowance is made for deductions of $14,944,870 capital expenditure on the Hudson Bay railway re-ansferred to the Government of Canada during construction, $301,019 deficits of the same railway and epayments by Canadian Government railways to the Dominion Government, also addition for improve-ients and betterments, etc., making a net deduction of $16,523,270.

[3] Includes a loss in revenues of $931,810 from reductions ordered by the Maritime Freight Rates Act.

PART III.—ELECTRIC RAILWAYS.

The cheap and reasonably rapid conveyance of human beings is a necessity f modern urban life and is supplied throughout Canada by the electric street ailway, generally operated by the development of the water-powers which are so mportant a feature of Canadian economic life.

Historical.—Replacing the horse car systems, used in Montreal and Toronto s early as 1861, electric street railways were first seen in operation in Canada in 885, when a successful experimental railway was constructed and operated at the oronto Exhibition grounds. Before many years their safety and convenience esulted in the discarding of the older system. An electric system 7 miles in length vas opened at St. Catharines in 1887, using the double overhead trolley. This was ollowed by the completion of the Ottawa Electric railway in 1891, and the electri-ication of the Montreal and Toronto systems in 1892. The street railways of other astern cities were generally electrified during the 1890's, while in the newer western

cities electricity was used from the commencement. In the cities of the East electri street railways are generally operated by private companies under franchises fro the city, while in a considerable number of cities of Ontario and the West the stre railways are owned and operated by the city, a fact which is indicated in Table 26 In 1921, on the expiry of the 30-year franchise of the Toronto Street Railway Co the railway in this second largest city of Canada was taken over by the city and i now being operated by a transportation commission.

Where possible, water-power with turbine engines is used for generating p poses. Where this is not available steam power is necessary, and although this i a more expensive method, modern devices have greatly reduced the cost per h Many difficulties are met in operating the cars during the winter season, owing t snow, ice and sleet. These, however, have been overcome by the use of sweepe scrapers and ploughs. The single overhead trolley system has been found th most suitable and is in general use.

In addition to the street railways there is quite a large mileage of electri suburban or inter-urban lines, especially in the Toronto, Niagara and lake Eri district, where considerable freight traffic is carried, and on the Pacific coast, wher the British Columbia Electric Railway operates several hundred freight cars.

Development of Electric Railway Traffic.—Figures for the year 1893 sho that 30 companies, with a paid-up capital of about $9,000,000, operated 256 miles railway. By 1897, 35 companies made returns showing 583 miles of track, 1,15 cars, 26,431,017 miles run, 83,811,306 passengers carried and capital of $18,727,355 In 1904, 46 companies showed 766 miles of track, 2,384 cars, 42,066,124 miles run 181,689,998 passengers and capital of $30,314,730. The statistics for 1927 sho that during that year 62 companies with a capital of $222,552,717, had 2,500 mile computed as single track, 5,666 cars, locomotives, etc., 131,583,717 miles run, an 781,398,194 fare passengers. The number of employees in the service of electri railways on Dec. 31, 1927, was 18,090, as compared with 16,961 in 1926. Tot salaries and wages for the year 1927 were $25,891,020, as against $24,686,549 i 1926.

Statistics of Electric Railways.—Summary statistics of the operation electric railways in Canada from 1901 to 1927 inclusive are given by years in Tab **23.** It may be noted in this table that the carriage of freight reached its maximu in 1926, with 3,493,457 tons, while the number of fare passengers carried in 19 was less by over 23,000,000 than the maximum in 1920. This situatio may be more or less directly traced to the growth in the number and use of privat motor cars and motor buses, particularly in urban municipalities. In Table 2 statistics of mileage and equipment are given for the last four calendar years, an annual statistics of the capital liability of electric railways are furnished from 19 in Table **25.** Detailed figures of the miles operated, the capital liability, the earn ings, operating expenses, employees and salaries and wages, are given for 1927 i Table **26,** while Table **27** shows by years from 1894 to 1927 the number of passe gers, employees and others killed and injured on electric railways in Canada.

23.—Summary of Statistics of Electric Railway Operation, years ended June 30, 1901-1919, and calendar years 1919-1927.

Years.	Single Track Mileage in Operation.	Total Car Mileage.	Passengers.	Freight.	Gross Earnings.	Operating Expenses.	Ratio of Expenses to Receipts.	Employees.
	Miles.	Miles.	No.	Tons.	$	$	p.c.	No.
1901	552·91	31,750,754	120,934,656	287,926	5,768,283	3,435,162	59·55	–
1902	557·59	35,833,841	135,681,402	266,182	6,486,438	3,802,855	58·63	–
1903	759·36	38,028,529	155,662,812	371,286	7,233,677	4,472,858	61·83	–
1904	766·50	42,066,124	181,689,998	400,161	8,453,609	5,326,516	63·01	–
1905	793·12	45,959,101	203,467,217	510,350	9,357,125	5,918,194	63·25	–
1906	813·74	50,618,836	237,655,074	506,024	10,966,871	6,675,037	60·87	–
1907	814·52	53,361,227	273,999,404	479,731	12,630,430	7,373,251	58·38	–
1908	992·03	56,964,881	299,099,309	732,475	14,007,049	8,695,880	62·08	–
1909	988·97	60,152,846	314,026,671	–	14,611,484	8,885,235	60·81	10,557
1910	1,047·07	65,249,166	360,964,876	852,294	17,100,789	10,121,781	59·19	11,390
1911	1,223·73	72,618,806	426,296,792	1,228,362	20,356,952	12,096,134	59·42	13,671
1912	1,308·17	82,070,064	488,865,682	1,435,525	23,499,250	14,266,675	60·71	14,760
1913	1,356·63	89,005,216	597,863,801	1,957,930	28,216,111	17,765,372	62·96	16,351
1914	1,560·82	98,917,808	614,709,819	1,845,923	26,691,007	19,107,818	64·36	16,195
1915	1,590·29	96,964,829	562,302,373	1,433,602	26,922,900	18,131,842	67·35	14,795
1916	1,673·77	82,516,612	580,094,167	1,936,674	27,416,285	18,099,906	66·02	10,622
1917	1,743·54	84,073,046	629,441,997	2,333,539	30,237,664	20,068,634	66·47	11,696
1918	1,616·36[1]	84,435,323[1]	487,365,456[1]	2,497,530[1]	24,299,890[1]	17,535,975[1]	72·16[1]	11,646[1]
1919	1,696·52	106,961,607	686,124,263	2,474,892	35,696,532	26,839,071	75·18	17,242
1919[2]	1,686·78	110,206,344	749,334,380	2,374,612	40,698,586	31,385,702	77·12	16,940
1920[2]	1,698·76	114,481,406	804,711,333	2,691,150	47,047,246	37,242,483	79·16	17,341
1921[2]	1,687·37	111,576,949	719,305,441[3]	2,285,886	44,536,832	35,945,316	80·71	17,015
1922[2]	1,724·60	116,711,189	738,908,949	2,445,425	49,660,485	35,986,872	72·47	18,099
1923[2]	1,736·31	119,374,416	737,282,038	3,145,863	50,191,387	36,171,923	72·07	17,779
1924[2]	1,736·77	119,803,072	726,497,729	2,546,928	49,439,559	36,125,213	73·07	17,379
1925[2]	1,737·52	119,684,151	725,491,101	2,706,312	49,626,231	35,426,487	71·39	16,933
1926[2]	1,684·18	122,935,055	748,710,836	3,493,457	51,723,199	36,453,709	70·50	16,961
1927[2]	1,652·15	131,583,717	781,398,194	3,269,028	53,506,401	37,616,568	70·30	18,090

[1] Not including Montreal Tramways and several other units. [2]Calendar year.
[3]The report of the Toronto Transportation Commission for the last four months of 1921 would increase this number by about 80,000,000 or possibly bring it up to the 1920 record.

24.—Mileage and Equipment of Electric Railways in the calendar years 1924-1927.

Mileage.	1924.	1925.	1926.	1927.
Length of first main track	1,736·77	1,737·52	1,684·18	1,652·15
Length of second main track	524·91	543·47	553·39	562·94
Total length of main track	2,261·68	2,280·99	2,237·57	2,215·09
Length of sidings and turnouts	285·57	283·57	291·18	284·58
Total, computed as single track	2,547·25	2,564·56	2,528·75	2,499·67

Equipment.	1924.	1925.	1926.	1927.
Passenger cars—				
closed	3,883	3,946	3,584	3,582
open	206	196	177	128
combination open and closed	62	18	5	1
combination passenger and baggage	15	19	18	21
without electrical equipment	[1]	[1]	400	377
Total passenger cars	**4,166**	**4,179**	**4,184**	**4,109**
Trackless trolley cars	8	8	–	–
Baggage, express and mail cars	30	27	28	29
Freight cars	652	652	635	651
Buses	48	127	233	334
Snow ploughs	65	61	64	63
Sweepers	155	159	164	164
Miscellaneous	301	346	297	254
Locomotives	61	65	60	62
Total units of equipment	**5,486**	**5,624**	**5,665**	**5,666**

[1]Included in other classes prior to 1926.

25.—Capital Liability of Electric Railways, years ended June 30, 1908-1919, and calendar years 1919-1927.

NOTE.—The totals here given do not include $493,346 aid paid by Governments and municipalities.

Years.	Stocks.	Funded Debt.	Total.	Years.	Stocks.	Funded Debt.	Total.
	$	$	$		$	$	$
1908	50,295,266	37,114,619	87,409,885	1919	93,042,368	78,852,188	171,894,556
1909	51,946,433	39,658,556	91,604,989	1919[1]	91,757,418	81,283,922	173,041,340
1910	58,653,826	43,391,153	102,044,979	1920[1]	91,321,955	79,504,419	170,826,474
1911	62,251,203	49,281,144	111,532,347	1921[1]	91,169,885	86,017,551	177,187,436
1912	70,829,118	52,012,828	122,841,946	1922[1]	76,949,185	111,309,798	188,258,983
1913	62,079,767	79,155,864	141,235,631	1923[1]	76,674,185	122,395,685	199,069,870
1914	66,311,098	81,284,244	147,595,342	1924[1]	76,432,085	137,285,575	213,767,660
1915	66,696,675	83,647,327	150,344,002	1925[1]	58,567,242	163,201,978	221,769,220
1916	67,738,275	87,157,309	154,895,584	1926[1]	57,779,518	158,029,002	215,808,520
1917	70,606,520	90,628,219	161,234,739	1927[1]	58,873,778	163,678,939	222,552,717
1918	73,864,820	93,388,273	167,253,093				

[1] Calendar year.

26.—Mileage Operated, Capital, Earnings, Operating Expenses, Employees and Salaries and Wages Bill of Electric Railways in Canada, year ended Dec. 31, 1927.

Names of Railways.	Mileage Operated.	Capital Liability.	Gross Earnings.	Operating Expenses.	Employees.	Salaries and Wages.
	Miles.	$	$	$	No.	$
Brandon Municipal[1]	7·65	450,000	36,707	48,516	19	24,374
Brantford and Hamilton	23·19	960,000	144,698	117,495	42	60,318
Brantford Municipal[1]	22·67	531,500	150,351	120,740	61	84,654
British Columbia	222·75	22,171,642	5,736,700	4,609,316	2,186	3,564,562
Calais Street	6·41	200,000	47,775	50,105	16	17,509
Calgary Municipal[1]	52·83	2,545,174	862,028	560,943	231	424,378
Canadian National Electric Railways; Toronto Suburban District	49·36	5,278,000	197,503	237,021	111	148,701
Cape Breton Electric Co	30·59	2,535,000	282,695	244,324	102	143,332
Chatham, Wallaceburg and Lake Erie	36·65	1,560,600	151,132	164,904	51	64,686
Cornwall Street Ry., Light and Power Co	4·00	295,000	107,991	56,968	30	40,076
Edmonton Radial[1]	33·23	3,063,163	771,896	536,764	232	383,774
Fort William Street[1]	22·99	1,238,000	213,627	168,552	63	95,047
Grand River	18·65	551,000	346,108	274,319	142	196,535
Guelph Radial[1, 2]	8·49	416,334	91,476	76,776	32	43,245
Hamilton and Dundas Street[3]	–	200,000	6,367	5,782	4	3,582
Hamilton, Grimsby and Beamsville	22·60	385,000	196,319	176,645	43	61,027
Hamilton Radial	11·00	271,150	110,006	106,760	33	46,767
Hamilton Street	18·00	1,425,000	1,161,088	1,158,627	448	590,423
Hull Electric	16·54	292,000	309,055	225,891	138	184,932
International Transit Co	4·97	150,000	62,439	40,849	22	25,122
Kitchener Public Utilities Street Ry. Dept	6·65	260,685	130,010	84,332	32	47,696
Kingston, Portsmouth and Cataraqui	6·00	179,850	52,593	50,002	27	36,084
Lake Erie and Northern	51·00	3,817,500	268,859	251,330	124	136,280
Lethbridge Municipal[1]	8·20	289,190	56,354	56,722	25	34,565
Lévis Tramways Co	11·50	1,115,000	161,978	112,772	64	79,054
London and Port Stanley (Lessors)	24·50	1,775,194	–	–	–	–
London and Port Stanley (Lessees)		1,738,500	477,018	431,200	138	192,298
London Street	34·37	1,112,480	638,519	531,598	280	353,758
Moncton Tramways, Electricity and Gas Co., Ltd	2·72	1,291,900	17,667	26,054	12	12,197
Montreal Tramways	149·13	46,823,343	13,873,310	8,442,344	4,462	5,786,469
Montreal and Southern Counties[5]	55·89	500,000	653,303	532,193	220	288,680
Moose Jaw	9·00	795,372	92,422	80,739	38	49,936
Nelson Municipal[1]	3·38	81,000	18,741	30,193	10	15,993
New Brunswick Power Co	16·60	5,305,500	405,038	295,000	145	156,820
Niagara Falls Park and River Division of the Inter. Ry	11·65	600,000	202,400	204,539	49	90,471
Niagara, St. Catharines and Toronto[5]	70·64	2,965,500	1,077,472	892,864	513	669,512
Niagara, Welland and Lake Erie	1·51	292,000	17,656	11,497	5	6,732
Nipissing Central[4]	10·77	159,000	67,505	60,440	20	30,036
Nova Scotia Tramways and Power Co	13·10	8,271,300	578,901	417,511	176	275,971
Oshawa[5]	10·55	40,000	482,985	239,517	150	191,174
Ottawa	30·06	6,519,700	1,788,691	1,252,013	618	909,082

[1] Municipally owned. [2] Operated by H.E.P.C. of Ontario. [3] Not in operation. [4] Provincially owned.
[5] Stock owned by Canadian National Railways.

26.—Mileage Operated, Capital, Earnings, Operating Expenses, Employees and Salaries and Wages Bill of Electric Railways in Canada, year ended Dec. 31, 1927—concluded.

Names of Railways.	Mileage Operated	Capital Liability.	Gross Earnings	Operating Expenses	Employees.	Salaries and Wages.
	Miles.	$	$	$	No.	$
Peterborough Radial [3,4]	–	–	23,034	29,221	–	–
Pictou County Electric Co	8·20	653,500	57,953	46,676	21	24,746
Port Arthur Civic [1]	13·63	586,085	231,826	151,387	63	95,282
Quebec Railway, Light and Power Co. [5]	23·04	–	1,118,469	904,848	506	631,333
Regina Municipal [1]	25·59	1,470,918	371,944	250,291	93	168,676
Saskatoon Muncipal [1]	14·12	900,036	329,359	220,439	92	146,218
Sandwich, Windsor and Amherstburg [1,4]	41·03	5,166,205	1,062,680	843,760	272	434,106
Sarnia Street	8·75	181,000	76,019	64,634	31	41,758
Shawinigan Falls Terminal	4·07	446,593	113,308	74,492	20	29,088
Sherbrooke Railway and Power Co.	9·39	2,595,000	109,659	100,442	71	64,800
Suburban Rapid Transit Co	21·22	600,000	167,384	139,914	–	–
Sudbury Copper Cliff Suburban	7·90	248,100	37,691	34,114	11	17,830
Sydney and Glace Bay [6]	–	842,000	–	–	–	–
Three Rivers Traction Co	9·00	963,700	190,520	142,012	49	69,749
Toronto Transportation Commission [1]	103·74	39,728,567	12,489,276	7,620,155	4,168	6,336,344
Toronto and York Radial [1,4]	65·43	3,487,000	655,763	776,770	–	–
Township of York and Town of Weston [7]	9·23	1,469,899	298,667	255,492	–	–
Windsor, Essex and Lake Shore Rapid	37·35	1,750,000	220,388	217,483	70	107,392
Winnipeg	67·57	31,391,036	3,606,121	2,583,926	1,448	2,069,626
Winnipeg, Selkirk and Lake Winnipeg	40·22	900,000	207,587	130,693	43	66,458
Yarmouth Light and Power Co	3·00	721,500	91,362	42,750	23	21,763
Total	**1,652·15**	**222,552,717**	**53,506,401**	**37,616,568**	**18,090**	**25,891,020**

[1] Municipally owned. [2] Owned by Canadian National Rys. [3] Provincially owned. [4] Operated by the H.E.P.C. of Ontario. [5] Citadel division operations only. Total capital and operations of the Montmorency division are included in steam railways. [6] Mileage and operations included with Cape Breton Electric Co. [7] Operated by Toronto Transportation Commission.

27.—Number of Passengers, Employees and others Killed and Injured on Electric Railways, calendar years 1919-1927, with Totals from 1894 to June 30, 1919.

NOTE.—Details for years ended June 30, 1900-1919, are given on p. 611 of the 1926 Year Book.

Years.	Passengers.		Employees.		Others.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Totals, 1894 to June 30, 1919	**259**	**23,802**	**162**	**5,009**	**833**	**10,608**	**1,254**	**39,419**
Years ended Dec. 31.								
1919	4	1,717	29	951	58	1,505	91	4,173
1920	9	1,968	7	658	75	1,434	91	4,060
1921	5	1,110	8	609	35	666	48	2,385
1922	6	2,260	10	873	31	700	47	3,833
1923	6	2,465	11	1,652	45	790	62	4,907
1924	2	2,279	6	1,262	54	824	62	4,365
1925	9	2,272	5	1,736	37	744	51	4,752
1926	3	2,420	7	1,642	66	879	76	4,941
1927	–	2,090	7	1,508	71	1,260	78	4,858

PART IV.—EXPRESS COMPANIES.

"Express service is an expedited freight service on passenger trains." But express companies do not own the means of performing their services; they use railway facilities by virtue of contracts with the railways companies. Express companies in Canada have had close relations with the railways practically from

the beginning. A brief history of the various express companies will be found on pp. 611 and 612 of the 1926 Year Book.

Before 1915, an express company in Canada was not liable for delay or damage caused by anything quite beyond its control, thus maintaining itself as an entity separate from the railway company. But in 1915 this liability was qualified, and thenceforth an express company became liable for delay or injury of goods if either was caused by the railway company in whose cars the goods were being carried.

Goods are sent by express for quick transit, so that express companies do not have to compete with freight rates by rail or water. Thus in its first tariff the Dominion Express Co., in pursuance of its contract with the C.P.R., gave a rate of $2\frac{1}{2}$ times the maximum first-class railway freight rate for the same goods carried the same distance. An express company usually pays the railway company a percentage of its gross earnings; for example, the Canadian Express Co. paid the Grand Trunk 50 p.c. But the railway, by controlling the stock, has an additional revenue; and since express companies have little equipment but offices, and, therefore have slight expenses for upkeep, the railway receives in the end practically all the profits of the express company above bare operating expenses. Express rates, like freight rates, are subject to the approval of the Board of Railway Commissioners.

Express Company Operations.—During 1927, the last year for which the statistics of the Transportation Branch of the Dominion Bureau of Statistics are available, there were three Canadian and one American express organizations operating in Canada. The Canadian Pacific Express Co., formerly the Dominion Express Co., is a subsidiary of the Canadian Pacific Railway and handles the express business on the railways and the inland and ocean steamship lines of the parent company. The express business of the Canadian National system is handled by a department of the railway. The British America Express Co. operates over the Algoma Central and Algoma Eastern railways. The Central Canada Express Co. was formerly operated over the Central Canada, the Edmonton, Dunvegan and British Columbia and the Alberta and Great Waterways railways, but in 1927 its business was handled by the Canadian National Express Department. The American Railway Express Co. operates over the Canadian sections of United States railways and over the route from Skagway to points in the Yukon Territory. These companies are organized under powers conferred by Acts of the Dominion Parliament, and their business consists in the forwarding of parcels, the transfer of baggage and the issue of money orders, travellers' cheques, letters of credit and other forms of financial paper (Table **30**). The total capital liabilities of the two Canadian companies and of the Canadian National express department on Dec. 31, 1927, stood at $9,760,000.

Statistics of the receipts and expenses of express companies in Canada are given in summary form for all companies for the years 1911 to 1927 in Table **2**, and for each company for the year 1927 in Table **29.** In these tables the amount paid by express companies to the carriers, *i.e.*, railways, steamship lines, etc., for transporting the express matter, are shown under the heading "express privileges". Table **29** also shows the mileage operated by each company in 1927. Of the total 60,209 miles, 40,973 were over steam railways, 14,227 on ocean steamship services (mainly by the Canadian Pacific lines), and 4,556 miles by inland or coastal steamboat routes.

28.—Summary Statistics of Revenues and Expenses of Express Companies, 1919-1927.

NOTE.—Similar figures for the years ended June 30, 1911-19, were published at p. 673 of the 1927-1928 Year Book.

Years ended Dec. 31.	Gross Earnings.	Operating Expenses.	Express Privileges.	Net Operating Revenue.
	$	$	$	$
1919	24,933,219	13,227,652	12,936,615	−1,231,048
1920	30,512,504	16,120,880	16,009,460	−1,617,836
1921	32,504,894	15,601,187	16,549,915	353,792
1922	28,697,332	13,596,518	14,581,789	519,025
1923	27,625,700	13,217,780	14,342,410	65,511
1924	26,196,017	12,723,651	13,557,168	−84,802
1925	25,876,342	12,336,485	13,312,960	226,897
1926	26,554,378	12,442,257	13,466,863	645,258
1927	26,532,182	12,548,374	13,275,355	708,453

29.—Revenues, Expenses and Operating Mileage of Express Companies, by Companies, calendar year 1927.

NOTE.—"American Railway Express" includes the American Express Co., Great Northern Express Co., Wells, Fargo & Co., consolidated during the war under the operation of the United States Government.

Companies.	Gross Earnings.	Operating Expenses.	Express privileges.	Net Operating Revenue.	Mileage Operated.
	$	$	$	$	Miles.
American Railway Express	1,427,167	436,246	971,422	19,498	4,003
British America Express	35,211	10,734	17,606	6,872	410
Canadian National Railways	13,787,436	6,386,033	6,252,890	1,148,513	24,219
Canadian Pacific Express	11,282,368	5,715,360	6,033,438	−466,431	31,576
Central Canada Express[1]	–	–	–	–	–
Total	**26,532,182**	**12,548,374**	**13,275,355**	**708,453**	**60,209**

[1] The business of the Central Canada Express Co. over the Central Canada, the Edmonton, Dunvegan and British Columbia and the Alberta Great Waterways railways was handled by the Canadian National Railways Express Department during 1927.

30.—Business transacted by Express Companies in Financial Paper in the calendar years 1922-1927.

Description.	1922.	1923.[1]	1924.[1]	1925.	1926.	1927.
	$	$	$	$	$	$
Money orders, domestic	50,217,071	27,994,599	26,301,978	53,916,113	58,757,263	61,898,551
Money orders, foreign	1,467,039	1,507,499	1,469,340	1,292,338	924,551	1,318,094
Travellers' cheques, domestic	906,928	1,028,530	977,860	1,106,340	1,304,220	3,844,700
Travellers' cheques, foreign	311,110	521,090	577,320	1,109,253	1,168,929	1,331,335
"C.O.D." cheques	18,308,877	8,608,844	7,873,570	7,807,254	7,743,099	7,448,715
Telegraphic transfers	110,620	180,948	437,477	475,410	462,740	486,821
Other forms	486,547	439,922	582,580	741,388	1,037,240	1,652,317
Total	**71,808,192**	**40,281,432**	**38,220,125**	**66,448,095**	**71,398,042**	**77,980,534**

[1] The business of the Canadian National Express in financial paper is not available for 1923 and 1924, and therefore the statistics for those years are not comparable with those of other years shown.

PART V.—ROADS AND HIGHWAYS.

Historical.—The early roads were auxiliary to water routes as avenues of transportation. Their use became common during the summer season, when portages were necessary to avoid obstacles to river and lake travel, and during the winters, when ice prevented navigation and snow covered the inequalities of the ground. Even the extensive system of waterways of Eastern Canada was an inadequate means of communication between points of settlement in a rapidly growing colony, and the need for overland routes manifested itself in the introduction of the system of common roads which prevailed under the old *régime*. Not only did the crude early roads serve the needs of the settlers, but also those of the British, French and American armies during the numerous campaigns. Soldiers were frequently employed, during times of peace, in road construction in different parts of Upper and Lower Canada.

The first important highway in Canada extended along the north shore of the St. Lawrence from Quebec to Montreal, being gradually completed with the growth of the French settlements. In Upper Canada, one of the earliest roads was that from Toronto to lake Simcoe (Yonge St.), completed in 1794 under the direction of Gov. Simcoe, the work being done by the Queen's Rangers. This road not only gave access to the area north of Toronto, but also provided a more convenient route than that of the Ottawa river from the trading posts on the Upper Lakes to the centres of population along the St. Lawrence. Montreal was joined to Kingston by road in 1816, and in the following year to Toronto. Thereafter other highways from points served by water routes to inland settlements began to increase in number, as it became apparent that they were essential to the commercial life of the country as a means of transporting supplies to the settlers and of bringing their products to the central markets of the colony. The system of posts which had been established about the beginning of the nineteenth century necessitated passable routes between the various offices, and by 1827 a through road was available between Halifax and Amherstburg, comprising for the most part the old Kempt road, the York road, Dundas street and the Baldoon road. From this trunk line of communication, branch roads extended north and south to the more important centres of population in the two Canadas.

The cost of construction of these roads was high, and travel by stage coach was tedious and costly. As late as 1850, some points in central Ontario were still inaccessible to any vehicle. Later years, however, have brought with them improved methods of construction and a resulting reduction in expenses, together with an improvement in the wearing qualities of the more important highways. The growth of motor traffic has played a conspicuous part in the recent movement towards increased and improved road construction. In the older provinces of the East it has been a question of improving the existing roads and of building highways for the use of through traffic between the larger cities, while in the western provinces it has been more a matter of replacing the prairie and mountain trails with roads fit for modern tourist and other traffic.

A table of road mileage in Canada is appended. When it is considered that throughout the Dominion there are but 22 persons to every mile of road and that on an average there is one mile of road for every 9 square miles of land, the magnitude of the problem faced in the construction of these traffic routes is illustrated. A small population scattered over a large area has made this, like other transportation problems, particularly difficult of solution.

31.—Classification of Canadian Highways, by Provinces, Mar. 31, 1927.

Provinces.	Unimproved.	Improved Earth.	Gravel.	Water-bound Macadam.	Bituminous Macadam.	Bituminous Concrete.	Cement Concrete.	Total.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
P. E. Island	2,839	790	15	–	6	–	–	3,650
Nova Scotia	–	11,082	3,293	31	6	–	–	14,412
New Brunswick	–	8,987	2,600	–	13	–	–	11,600
Quebec	7,850	15,561	5,709	1,570	122	120	78	31,000
Ontario	–	26,955	32,287	3,318	461	283	624	63,928
Manitoba	65,995	2,025	1,955	–	–	25	–	70,000
Saskatchewan	149,395	2,541	64	–	–	–	–	152,000
Alberta	58,481	1,169	350	–	–	–	–	60,000
British Columbia	–	12,933	4,248	38	70	95	40	17,424
Total	**284,560**	**82,043**	**50,521**	**4,947**	**678**	**523**	**742**	**424,014**

Good Roads Movements.—The building of new roads and the improvement of those already in use is a matter of such general interest that numerous organizations have been developed throughout the country for the purpose of advising and assisting the various governments in the work. Good roads associations, assisted by the automobile and motor clubs, are to be found in most of the provinces, for the distribution of propaganda and the education of the public in the needs of improved highway routes. A branch of the Department of Railways and Canals directs its efforts solely to the study of highway development and construction, of the relations between the Dominion Government and the provincial Highway Departments and the financial assistance given to the provinces for road building.

The Canada Highways Act.—By c. 54 of the Statutes of 1919, the Dominion Parliament authorized the expenditure of $20,000,000 for the purpose of constructing and improving the highways of Canada during the five years succeeding the passage of the Act. In its apportionment, grants of $80,000 were made to each province during each of the five years, the remainder being allotted in proportion to their respective populations. Details as to cost, time, methods of construction, etc., of all roads built under the scheme were to be arranged between the Minister of Railways and Canals and the various Provincial Government Departments. Table 32 illustrates the working of the Act, showing the number and extent of projected roads and some of the more important items in the expenditure entailed. By c. 4 of 1923 and c. 4 of 1925 the operation of the Act was extended to April 1, 1928.

32.—Statement of Road Projects of Provinces under the Canada Highways Act, 1919, to Mar. 31, 1928.

Provinces.	Number of project agreements.	Mileage.	Estimated sub-sidizable cost.	Estimated Dominion aid (40 p.c.).	Provincial allocation under the Act.	Total payments to Mar. 31, 1928.
			$	$	$	$
Prince Edward Island	77	751	1,576,848	630,739	603,455	603,455
Nova Scotia	56	475	3,727,271	1,490,909	1,468,720	1,468,720
New Brunswick	19	1,237	2,950,600	1,180,240	1,163,845	1,163,845
Quebec	166	1,005	11,771,692	4,708,677	4,748,420	4,748,420
Ontario	39	638	13,424,319	5,369,727	5,877,275	5,877,275
Manitoba	43	1,342	4,129,611	1,651,844	1,602,265	1,602,265
Saskatchewan	91	1,987	4,843,096	1,937,238	1,806,255	1,806,255
Alberta	52	955	4,008,491	1,603,397	1,477,810	1,477,810
British Columbia	23	364	3,149,264	1,259,705	1,251,955	1,251,955
Total	**566**	**8,753**	**49,581,192**	**19,832,477**	**20,000,000**	**20,000,000**

PART VI.—MOTOR VEHICLES.

The earliest motor vehicles were propelled by steam, the history of the gasolene motor car commencing with the successful construction of a gasolene engine by Daimler in 1884. Until 1900 France remained the headquarters of the industry, possessing in that year more than half of the 10,000 cars in operation in Europe, while in the United States the number of cars was only about 700. Shortly afterwards, the invention of the Ford car resulted in a keen competition to bring motor cars within the reach of the average man, profits being secured from large production rather than high prices. Detroit became the centre of the automobile industry of the United States and the Canadian side of the Detroit river became the headquarters of the Canadian industry. As a consequence, the population of such border towns as Windsor, Walkerville and Sandwich greatly increased between 1911 and 1921, while the town of Ford, which had no existence in 1911, had 5,870 inhabitants in 1921 and 13,105, according to the municipal assessors, in 1927, when the aggregate for the "Border Cities" was over 97,000. Problems of regional location have resulted during more recent years in a gradual shifting of the centre of the industry, and the Toronto and Oshawa districts now rival in importance the older established centre on the Detroit river.

Like many other inventions, the motor car commenced as a toy, then as a luxury of the rich, while now it ranks as a comfort of those in moderate circumstances and may even become a necessity of life to the masses. Of late years it has been increasingly used for economic purposes; to-day the great majority of cars effect substantial economies in time or in money for their owners, partly or wholly offsetting their cost of upkeep. In the past few years, the motor truck—the freight automobile—and the motor bus have assumed considerable economic importance, and are now separately classified in Table 34 of this section.

In a recent government report the statement is made that "the automotive transport industry is just beginning to be a factor in the transportation of passengers and freight in this country. Railways have found that the handling of less than car-load lots of freight is often unprofitable business; it follows that commercial trucks are being used in greater numbers to carry lighter shipments of property between some of the larger centres served by adequately surfaced highways". While the increased passenger and freight rates are probably a main cause of the comparatively slow increase in recent years in railway traffic (see Table 8 of this chapter), there can be no doubt that motor vehicles are now carrying much of the short haul traffic formerly carried by steam railways. In addition, a certain amount of traffic formerly carried over water routes has been diverted to these more modern carriers.

The automobile manufacturing industry in Canada has made very rapid growth since its beginning about the year 1905, two of its chief tendencies during the period having been a consolidation of smaller firms into large units and the adoption of large-scale methods of production, similar in many ways to those of the United States industry. A brief statement of its history, with statistics of production, etc., is to be found on pp. 432 to 436 of the Canada Year Book, 1924.

Section 1.—Statistics of Motor Vehicle Operation.

Registration.—The increase in the use of motor vehicles in Canada has been very rapid. In 1904 the number of motor vehicles registered in Ontario was only 535. In 1907, 2,130 motor vehicles were registered in six provinces, and in 1908, 3,033 in eight provinces, the motor car being at that time prohibited in Prince

Edward Island. From these small beginnings Table 33 shows an increase to 945,672 motor vehicles in 1927, an increase over 1926 of 108,878, or more than the total number of motor vehicles registered in 1915. In Table 34 are given the numbers of motor vehicles registered by provinces in 1927, classified as passenger cars, commercial cars or trucks, motor buses and motor cycles.

By far the greatest increase during 1927 was in Ontario, where the number of cars registered is shown as 436,120, in comparison with 388,728 in 1926. The percentage increase in this province was 12·2, as compared with a figure of 13·0 for the whole of Canada, the absolute increase of 47,392 constituting 43·5 p.c. of the total increase for the Dominion.

According to statistics for 1927 published by the Department of Commerce of the United States, Canada in that year was in fourth place among the countries of the world in the number of its registered motor vehicles. The total shown (939,478), which, however, is lower than the provincial totals of registrations collected by the Dominion Bureau of Statistics, is 233,500 less than that of the United Kingdom, with 1,173,000, and 16,522 less than France, with 956,000 registered motor vehicles in 1927. Registrations in United States during 1927 were 23,127,315; in Australia, 423,521; in Germany, 422,300; in Argentina, 241,356; in Spain, 176,075; in Italy, 158,600; in Brazil, 136,000; and in New Zealand, 134,215.

In 1927, there was in Canada one motor vehicle for every 10·1 of its population, or one for every 2·0 families. In respect of population per motor vehicle, when compared with the more important foreign countries, Canada ranks second in 1927, being exceeded by the United States with one motor vehicle for every 5·1 of population, while New Zealand was third with one for every 10·3. A comparison of the various provinces in the same respect shows, in 1927, one motor vehicle to every 19·6 persons in Prince Edward Island, to every 18·2 in Nova Scotia, 16·7 in New Brunswick, 20·4 in Quebec, 7·3 in Ontario, 10·1 in Manitoba, 7·9 in Saskatchewan, 8·3 in Alberta, 7·4 in British Columbia and 22·2 in the Yukon Territory.

Table 33 shows the registration of motor vehicles in Canada, by provinces, for the years 1907 to 1927.

33.—Number of Motor Vehicles registered in Canada, by Provinces, calendar years 1907-1927.

NOTE.—The number of motor vehicles in the Yukon is included in the totals for Canada, 1914-27.

Years.	P.E. Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Canada.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1907	–	62	–	254	1,530	–	54	55	175	2,130
1908	–	65	104	296	1,754	412	74	65	263	3,033
1909	–	69	167	485	2,452	662	149	275	504	4,763
1910	–	148	299	786	4,230	1,524	531	423	1,026	8,967
1911	–	228	483	1,878	11,339	2,436	1,304	1,631	2,220	21,519
1912	–	456	700	3,535	16,266	4,099	2,286	2,505	4,289	34,136
1913	26	511	824	5,452	23,700	5,475	4,659	3,773	6,138	50,558
1914	31	1,324	1,328	7,413	31,724	7,359	8,020	4,728	7,628	69,598
1915	34	1,841	1,900	10,112	42,346	9,225	10,225	5,832	8,360	89,944
1916	50	3,012	2,965	15,335	54,375	12,765	15,900	9,516	9,457	123,464
1917	303	5,350	5,251	21,213	83,308	17,507	32,505	20,624	11,645	197,799
1918	639	8,100	6,434	26,897	114,376	24,012	50,531	29,300	15,370	275,746
1919	967	10,210	8,306	33,547	144,804	30,118	56,855	34,000	22,420	341,316
1920	1,419	12,450	11,196	41,562	177,561	36,455	60,325	38,015	28,000	407,064
1921	1,751	14,205	13,615	54,670	206,521	40,215	61,184	40,235	32,900	465,378
1922	2,167	16,159	13,746	61,995	240,933	42,200	61,367	40,642	34,526	513,821
1923	2,483	18,354	16,829	72,448	280,996	42,428	67,337	44,841	41,053	586,850
1924	2,583	20,764	19,975	85,145	308,693	44,322	70,754	51,148	48,626	652,121
1925	2,955	22,853	19,022	97,657	344,112	51,241	79,078	54,357	56,618	728,005
1926	3,460	25,879	21,541	108,332	388,728	57,857	97,267	65,590	68,009	836,794
1927	4,388	30,059	24,544	128,459	436,120	63,905	106,599	73,830	77,612	945,672

In Table 34 the registration of motor vehicles in 1927 is given according to the general type or purpose of the cars in use in each of the provinces.

34.—Types of Motor Cars registered in Canada, by Provinces, in the calendar year 1927.

Provinces.	Passenger Cars.[1]	Commercial Cars or Trucks.[2]	Motor Buses.	Taxi Cabs.[3]	Motor Cycles.	Dealers' Cars.	Total.
	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island	4,115	244	1	–	11	17	4,388
Nova Scotia	26,084	3,640	–	–	190	145	30,059
New Brunswick	22,289	2,001	40	–	94	120	24,544
Quebec	100,128	18,208	476	7,076	2,216	355	128,459
Ontario	386,903	43,442	480	–	3,159	2,136	436,130
Manitoba	57,718	5,210	17	–	484	476	63,905
Saskatchewan	92,640	11,346	–	923	179	1,511	106,599
Alberta	67,665	4,699	–	682	260	524	73,830
British Columbia	63,715	12,650	–	–	962	285	77,612
Yukon	110	35	3	–	8	–	156
Total	**821,367**	**101,475**	**1,017**	**8,681**	**7,563**	**5,569**	**945,673**

[1] Includes taxicabs and motor buses in British Columbia.
[2] Includes trailers and tractors in Quebec and taxicabs in Ontario.
[3] Includes motor buses in Saskatchewan and Alberta.

Government Revenue.—The taxation of motor vehicles, garages, chauffeurs, etc., is becoming a lucrative source of provincial government income. In every province the operation of automobiles and motor cycles is dependent on carrying a license duly issued by the various authorities, while similar licenses permit the maintenance of garages and the driving of cars or trucks by hired chauffeurs. Perhaps the most recent form of levy on the use of motor vehicles is the gasolene tax, which in 1927 was assessed in all provinces except Saskatchewan. In that year the revenue from this source represented nearly 33 p.c. of the total provincial taxation in connection with the operation of motor vehicles. The accompanying table (35) shows the provincial revenue for the year 1927, indicating, at the same time, the more important sources from which it is derived.

35.—Provincial Revenues from the Taxation of the Distribution and Operation of Motor Vehicles, for the year 1927.

Provinces.	Passenger Cars.	Trucks, etc.	Motor Cycles.	Dealers' Licenses.	Garages.	Operators and Chauffeurs.	Fines.	Gasolene Tax.	Total, including Miscellaneous Revenue.
	$	$	$	$	$	$	$	$	$
P. E. Island	76,538	3,794	85	566	–	327	–	42,921	124,854
Nova Scotia	568,565	78,713	1,559	10,008	–	44,321	4,185	258,503	968,428
New Brunswick	526,856	69,607	–	–	–	–	–	229,988	850,394
Quebec[1]	3,278,556	–	–	–	–	–	83,000	1,454,057	4,835,877
Ontario	3,836,415	1,303,554	12,095	54,975	22,750	529,534	47,730	4,032,942	10,151,230
Manitoba[1]	–	–	–	–	–	–	–	502,576	1,307,356
Saskatchewan	1,571,117	169,870	1,404	33,800	237	5,095	–	[2]	1,868,565
Alberta	1,250,966	–	–	21,258	1,305	6,505	9,341	691,312	2,032,344
British Columbia[1]	1,260,717	286,543	5,288	18,461	–	48,466	–	751,046	2,394,950
Yukon	1,122	363	32	–	–	–	50	[2]	1,714
Total[1]	–	–	–	–	–	–	–	**7,963,345**	**24,535,700**

[1] Revenue not segregated. [2] No gasolene tax.

Imports and Exports of Motor Vehicles.—Imports and exports of motor vehicles in the fiscal years ended 1908 to 1928 are shown, by number of cars and by values, in Table 36. In the earlier years the imports of cars far exceeded the exports, but as the Canadian automobile manufacturing industry became established, exports commenced to exceed imports and in the four fiscal years up to and including 1926 averaged between two or three times the value of the imports, while the number of cars exported exceeded the number imported in an even larger proportion. During the fiscal year 1927, however, while the exports almost maintained the high figures of previous years, the imports increased so much as again to approach the value of the exports, and in the fiscal year 1928 the imports exceeded the exports by nearly $9,000,000, owing to a continued increase in the importation of motor vehicles of all kinds and to the contraction in exports caused by the closing down of the factories of one of the largest makers of low-priced cars, pending the introduction of new models. The importation of parts has increased with the growth of the industry and amounted in the fiscal years ended Mar. 31, 1927 and 1928, to $30,336,461 and $33,237,181 respectively. In the same fiscal years exports (including re-exports) of automobile parts were $5,264,699 and $3,304,937 respectively.

36.—Canadian Imports and Exports of Motor Vehicles, fiscal years ended Mar. 31, 1908-1928.

Fiscal Years.	Imports of Motor Vehicles.				Exports of Motor Vehicles (including re-exports).			
	Passenger.		Freight.[1]		Passenger.		Freight.[2]	
	No.	$	No.	$	No.	$	No.	$
1908	674	912,971	–	–	205	320,708	–	–
1909	533	585,097	–	–	279	450,127	–	–
1910	1,424	1,732,215	–	–	448	627,469	–	–
1911	3,488	4,235,196	–	–	787	892,212	–	–
1912	6,022	6,511,115	–	–	2,156	2,039,993	–	–
1913	8,377	9,738,839	–	–	4,091	2,952,988	–	–
1914	6,288	7,213,375	–	–	6,691	4,321,369	–	–
1915	5,476	4,888,704	–	–	5,579	3,290,234	–	–
1916	8,055	5,089,329	–	–	17,493	9,223,813	–	–
1917	12,037	7,981,177	327	423,824	10,331	5,637,465	–	–
1918	16,118	11,317,245	964	1,275,179	8,829	4,471,521	–	–
1919	6,473	5,326,510	1,744	2,274,748	11,867	6,328,447	2,584	1,347,521
1920	10,805	11,204,461	2,274	3,831,084	20,883	13,589,423	4,166	2,319,629
1921	5,907	8,399,537	1,706	3,578,938	15,870	11,867,425	3,441	2,733,775
1922	7,181	9,501,362	806	1,537,765	13,676	7,879,845	1,314	673,038
1923	11,402	11,857,165	1,082	1,889,105	45,372	25,987,515	3,726	1,456,795
1924	9,549	9,532,350	1,340	1,910,808	54,939	27,566,869	15,419	5,545,225
1925	8,835	8,726,714	934	1,364,664	44,626	22,393,397	11,790	4,055,796
1926	14,935	14,022,814	1,189	1,772,414	61,860	29,888,014	19,238	6,300,327
1927	29,202	23,882,455	2,548	3,200,626	51,639	24,244,987	20,423	6,899,526
1928	35,783	29,234,603	4,208	5,187,889	32,076	19,833,969	15,115	5,611,929

[1] Freight automobiles were classified with passenger automobiles in figures of imports until 1917.
[2] Freight automobiles were classified with passenger automobiles in figures of exports until 1919.

Section 2.—Motor Vehicle Acts and Regulations.

The following is a brief synopsis of the laws and regulations in force in each province.

Prince Edward Island.—Under the Motor Vehicles Act, 1922, and regulations, all cars must be registered in the office of the Provincial Secretary. In addition to a registration fee of $2.50 and a marker fee of $1, an annual tax of 80 cents per 100 pounds weight is payable on Mar. 1, but is not required of non-residents unless the

car is used in the province during more than eight weeks in one year. Chauffeurs must be 18 years of age; all other drivers of cars, owners included, must be 17 years old and must be licensed. Every car must have a lock or other device to prevent it from being operated when left unattended. The speed limits are, in cities, towns and villages, 15 miles an hour, on approaches to steep descents, bridges, or highway crossings, 10 miles an hour, on roads outside cities or incorporated towns on which the driver has not a clear view for at least one hundred yards free from turns and intersections, 15 miles an hour, and in all other places, 25 miles an hour.

Nova Scotia.—The Motor Vehicle Act requires cars to be registered by the Motor Vehicle Branch, Department of Highways, which issues permits renewable annually on Mar. 31. Cars belonging to persons residing outside of Nova Scotia need not be registered if registered where the owners reside, and operated for private use. This privilege is given for a period of not more than three months in each year. If owners come into the province to reside permanently or to carry on business they must register. Every person who operates a motor vehicle must be licensed as a chauffeur, an operator, or a beginner. Motor vehicles must be equipped as provided in the Uniform Vehicle Code and the following are the permissible rates of speed:—15 miles an hour at railway crossings, schools, intersections with obstructed vision, curves with obstructed vision, danger zones; 20 miles an hour in a business district or residential district; 35 miles an hour under all other conditions. Commercial vehicles over 1 ton capacity, 25 miles an hour maximum speed.

New Brunswick.—Under the Motor Vehicle Law, 1926, the registering and licensing authority is the Motor Vehicle Branch, Department of Public Works. Cars must be registered when new and, besides the registration fee, an annual fee is payable on Jan. 1. Non-residents may not operate cars registered in another province during more than 90 days in any year without registering in New Brunswick. A chauffeur must be 18 years old; chauffeurs must take out licenses and must qualify by examination. The driver of a car must have a permit. If the driver is between 16 and 18 years of age the permit will be granted only after he passes an examination proving his ability to operate a car. To owners of cars a driver's permit is issued free of charge; to other persons the fee is $1.00. The speed limits are, in places which are closely built up, or in any city, town or village, 15 miles an hour, outside of any city, town or village where the road cannot be seen clearly for 200 yards, 20 miles an hour. All vehicles keep to the right.

Quebec.—The law regarding motor vehicles is contained in the Quebec Revised Statutes, 1925, c. 35. Cars must be registered in the office of the Provincial Treasurer and re-registered annually on Mar. 1. Certain government and municipal cars and farm tractors are given free registration, while exemptions are made in the case of pleasure cars registered in other provinces and certain commercial vehicles but only in cases specified in article 10 of the Act. All drivers of cars must be licensed and 18 years old. Cars, when left unattended, must be locked in such way as to prevent their use, and must have mufflers. The speed limits are, in cities, towns and villages, 20 miles an hour, on highways where the land is closely built up, 20 miles an hour, at bridges and cross-roads and within a distance of 300 feet before reaching a railroad crossing, 8 miles an hour, and in open country 30 miles an hour. Motors must stop for street cars which are standing to take on or discharge passengers, and must reduce the speed to 16 miles an hour when meeting another vehicle. These rates have reference to pleasure cars only. In the case of a commercial vehicle having non-pneumatic tires, a speed of 8 miles an hour when loaded and 10 miles an hour when unloaded is allowed. When equipped with pneumatic tires the corre-

onding rates are 12 and 15 miles an hour. Motor buses are allowed a speed of 25 niles an hour in open country.

Ontario.—The Act concerning motor vehicles is the Highway Traffic Act, 923. The registering authority is the Department of Public Highways, Motor Vehicles Branch, which issues permits that remain in force for the calendar year. Cars may be used without registration for not more than three months in one year f registered in some other province, and for 30 days in one year if registered in States of the Union which grant similar exemptions to residents of Ontario. No person under 16 may drive a car, and those between the ages of 16 and 18, as well s all paid chauffeurs, must have chauffeur's licenses. All other drivers must have operators' licenses. Cars must be equipped with mufflers. The speed limit in ities, towns and villages is 20 miles an hour, in other places 35 miles an hour, and t road intersections, where vision is obscured, one-half of these rates of speed. A motor may not pass a street car which has stopped for passengers to get on or off, until the passengers are on or off and safely to the side of the street. At street ntersections a vehicle approaching from the right has the right-of-way. All cars re required to be equipped with non-glaring headlights. Horse-drawn vehicles using the highways at night must carry a light on the left side showing white in ront and red behind, and visible for 200 ft. Motor vehicles equipped with four-wheel brakes must show at the rear an approved sign in the form of a red triangle.

Manitoba.—Under the Motor Vehicle Act, cars must be registered in the office of the Municipal Commissioner, and the registration is renewable annually on Jan. 1. Chauffeurs must not be under 18 years old, and must have licenses; other drivers must not be under 16 years of age. Cars must have mufflers and devices to prevent their use when left unattended. Motors must stop when behind standing street cars. The provisions of the Act relative to registration and display of registration numbers do not apply to a motor vehicle owned by a non-resident of the province, other than a foreign person, firm or corporation doing business in the province, provided that the owner thereof shall have complied with the provisions of the law of the province, foreign country, state or territory of his residence relative to registration of motor vehicles and the display of registration numbers thereon, and shall conspicuously display his registration numbers as required thereby. These provisions, however, shall be operative as to a motor vehicle owned by a non-resident of Manitoba only to the extent that, under the laws of the province, foreign country, state or territory of his residence, like exemptions and privileges are granted to motor vehicles duly registered under the laws of and owned by residents of Manitoba. No person shall operate a vehicle at a rate which is unreasonable, having regard to the traffic on the highway, and in case of prosecution for such an offence, the onus of proving his innocence shall be upon the person accused.

Saskatchewan.—The licensing authority under the Vehicles Act is the Provincial Secretary. Licenses expire annually on Dec. 31. License fees are based on the wheel base, and increase from a minimum of $15 to a maximum of $35. The fee for motor trucks, the wheel base of which does not exceed 125 in., is $15; exceeding 125 in. but not exceeding 130 in., $25; exceeding 130 in., $35. The fee for a livery license is $8 more than the fee for a private license for the same car. Every applicant for a livery or chauffeur's license must satisfy the Provincial Secretary that he is a fit and proper person capable of operating a motor vehicle, and all applicants resident in a city or town are required to obtain endorsement of

their application by the chief constable, the secretary-treasurer being responsibl in the smaller urban and rural municipalities. No person under the age of 16 ma drive a car. A chauffeur's license, the fee for which is $5, may be granted to appli cants under 18 only upon passing a special examination test. Every motor vehi except motor cycles must expose two number plates, one on the front and one o the rear. Freight and public vehicles, in addition to being registered under th Vehicles Act, must also secure license under the Public Vehicles Act, 1928, and ar required to display a second set of plates. These vehicles must be equipped wi a liquid fire extinguisher. The registration fees under this Act are for the form e an amount equal to the sum paid under the Vehicles Act, and in the case of th latter are dependent upon the passenger capacity. Motor vehicles must car lights at night, and all front lights must be of approved non-glare type. A no resident may use his motor vehicle within the province for a period of, or for perio together amounting to not more than 3 months in any year. Cars must be equip with mufflers. Cities, towns and villages have authority to regulate the speed li within their respective boundaries. There is no speed limit in rural districts, bu special precautions are prescribed against accidents. Motor vehicles must stop fo street cars which are taking on or discharging passengers. Upon meeting anoth vehicle at an intersection of highways, the vehicle to the right hand has the rig of-way. Should a driver desire to turn on leaving a stopping place in a city o town, he may do so only at an intersection of the public highway.

Alberta.—The law relating to motor vehicles is contained in the Vehicles an Highway Traffic Act, 1924. Cars must be registered in the office of the Provincia Secretary, who issues certificates which are renewable annually on Jan. 1. Pa chauffeurs must be licensed. No chauffeur's license shall be issued to any perso under the age of 18, and no person under the age of 16 shall drive or operate a mot vehicle. The speed limits are 20 miles an hour in cities, towns and villages, miles an hour at street crossings and bridges, and 30 miles an hour outside citie towns and villages. A motor car may not pass a street car which has stopped f passengers to get on or off. A resident of the United States or of any province Canada, who has complied with the provisions of the law regarding registration his motor vehicle in the state or province in which he resides, may use his mot vehicle within the province for a period or periods together not exceeding 3 mont in any year without registration. The same applies to drivers' licenses. Th Provincial Secretary may revoke or suspend the license of any chauffeur convict under the provisions of the Liquor Act of selling or having for sale intoxicati liquor. Provision is made for the impounding of cars by the authorities where t owners or drivers are convicted of driving cars while intoxicated or convicted und other sections of the Act relating to speeding and juvenile driving. There is pro sion against the carrying of loaded weapons in an automobile—a preventive measu against accidents during hunting trips.

British Columbia.—Under the Motor Vehicle Act and amending Acts, motor vehicles are to be registered with the Superintendent of Provincial Poli Trailers must also be licensed. Cars registered outside of the province may used for touring purposes for a period up to six months. Chauffeurs must take chauffeurs' licenses. Non-resident chauffeurs who have complied with the laws their place of residence are exempt from chauffeur's licenses while driving fore registered motor vehicles for which a touring permit has been issued and is in effe and in the case of U.S.-owned cars, for which a permit is not necessary while carry the customs permit. No chauffeur under 21 years of age shall operate a mo

vehicle carrying passengers for hire unless he is the holder of a special permit. No person shall drive or operate any motor vehicle on any highway unless he is the holder of a driver's license. No person under 17 years of age may drive a motor vehicle on any highway, except that a person over the age of 15 may obtain a special permit upon application of the parent or guardian, and after passing an examination. The parent or guardian is civilly liable for loss or damage caused through negligence or improper conduct of such minor. Dealers and motor vehicle salesmen require licenses to operate motor vehicles bearing demonstration plates. Prospective purchasers can only operate motor vehicles bearing demonstration plates upon written consent from the dealer, good for 48 hours, and for not more than two such periods in any year. Mechanics in the employ of the dealer may operate such cars for conditioning or testing without obtaining a license or written consent. Motor vehicles are to be driven in a careful and prudent manner at all times, the onus being on the driver for driving to the common danger if driving at a greater speed than 20 miles per hour in any city, town or village, or 30 miles per hour outside cities, towns or villages. A motor vehicle may not pass a standing street car at more than 5 miles per hour if such street car is not taking on or discharging passengers, and must stop if such street car is taking on or discharging passengers. A motor vehicle must not exceed a speed of 10 miles per hour when passing school houses between the hour of 8 a.m. and 5 p.m. of any day on which school is regularly held, or public playgrounds for children between dawn and dusk. Accidents must be reported. No person shall ride as a passenger on a motor cycle in front of the person driving or operating the motor cycle. Provision is made for the surrender of drivers' licenses upon conviction for an infraction of the Act or regulations or of section 285 (4) of the Criminal Code. Owners of motor vehicles are responsible for violations of the Motor Vehicle Act by persons entrusted with their motor vehicles.

Yukon Territory.—The Motor Vehicle Ordinance, No. 14, 1914, with amendments, requires all cars to be registered in the office of the Territorial Secretary, who issues certificates renewable annually on April 1. A non-resident may operate an unregistered motor for not more than 90 days. No male under 16, and no female under 18 years of age may drive a motor. In cities, towns and villages the speed limit is 15 miles an hour, or 10 miles an hour at street intersections.

PART VII.—AIR NAVIGATION.

During 1928 great advances were made in civil aviation. The Dominion and Provincial Governments extended the range and variety of their operations and commercial operating companies increased in number. Aircraft provide a ready means of obtaining accurate information of conditions in remote and unsettled parts, and easy access to them. Their use in the development and conservation of the natural resources is increasing every year. Air mail and air transport lines are now in operation in many parts of the Dominion.

Civil aviation in Canada is divided into two classes:—(1) Civil operations, carried out for other Government Departments under the Director of Civil Government Air Operations; (2) Commercial aviation, under the regulation of the Controller of Civil Aviation, both being part of the Department of National Defence.

Directorate of Civil Government Air Operations.—This Branch carried out flying on forest fire patrols, fire suppression, oblique and vertical photography for surveys, aerial wheat dusting, air mail investigation, observation of ice conditions in Hudson strait, and transportation, etc., for different Government Depart-

ments in various parts of the country. Permanent bases are established at Hig River, Alta.; Winnipeg, Man.; Ottawa, Ont.; and Dartmouth, N.S. The fore area under fire protection is 57,752,085 acres. During 1928 a total of 53,000 squa miles were photographed for survey purposes; the flying time on all operations wa 8,143 hours.

Provincial Operations.—The Ontario Provincial Air Service owns and ope ates 21 aircraft on fire protection, transportation, aerial photography and sketch in Northern Ontario, covering an area of about 800 miles from east to west, and 4 miles from north to south. Quebec and British Columbia contract with comm cial firms for the flying required.

Commercial Aviation.—During 1928 there were 55 commercial operat companies in Canada; their activities included forest fire patrols, timber cruisi aerial photography, transportation of passengers, express and mail, instructi advertising, short passenger flights, etc., in various parts of the country.

Regular air mail services were established in January 1928. Contracts ha been awarded to commercial firms by the Post Office Department for the follow air mail routes:—*Winter Services*: Leamington-Pelee Island; Quebec-Seve Islands-Anticosti; Moncton-Magdalen Islands. *Summer Services*: Rimous Montreal-Ottawa. *Annual Services*: Montreal-Toronto; Montreal-Albany; T Pas-Kississing; Lac du Bonnet-Bissett-Wadhope; Sioux Lookout-Red Lake Are *Experimental Services*: Winnipeg-Regina-Calgary; Regina-Saskatoon-Edmonto Montreal-Saint John-Halifax. 300,000 pounds of mail have been carried without lo or damage during 1928. Surveys for the extension of the present routes are bei undertaken as follows:—Ottawa-Winnipeg; Toronto-Sudbury.

To encourage a more widespread interest and knowledge of aviation, the Depa ment of National Defence assisted by issuing two light aeroplanes to 16 flying clu in the following cities:—Halifax, Granby, Montreal, Ottawa, Toronto, Hamilt London, Walkerville, Winnipeg, Regina, Moose Jaw, Saskatoon, Calgary, Edmo ton, Vancouver, and Victoria. Seven clubs commenced operations in May, th in June, three in July, and two in September. The membership at present is 2,4 A total of 8,100 hours has been flown, 125 members have obtained private pilo licenses and 29 members have obtained commercial pilot's licenses. Many fi aerodromes have been established through this movement.

A large air terminal is being built at St. Hubert, seven miles south of Montre a mooring tower for airships is being constructed, and an aerodrome; immigrati customs and postal facilities are available there. A terminal aerodrome at Rimou has also been constructed for the despatch and reception of trans-Atlantic m by air.

An aircraft industry to construct in Canada the aircraft and equipment requi for aviation is essential to the sound development of flying. Canadian Vick the pioneer firm in Canada, maintain their own designing department and h produced several original types specially suited for operations in Canada. T increased interest and the growing operations of the Dominion and Provinc Governments, and commercial operators, led to the establishment of increa manufacturing facilities. Several aircraft constructors from England and Uni States have formed branches in Canada for the assembly and service of t products. The DeHaviland Aircraft of Canada, Ltd., established a plant Toronto for the service and assembly of their aircraft, chiefly of the "Moth" li aeroplane type. The Reid Aircraft Co. established a factory in Cartierville, Que

and have produced an all-metal light aeroplane. The Armstrong-Siddeley Motors, Ltd., have established a branch in Ottawa for the service, assembly and repair of their aero engines and aircraft in Canada.

Statistics of civil aviation have been compiled from the Report on Civil Aviation (see Table 37). While these statistics are not given under provincial classifications, it may suffice to state that the greatest amount of civil flying is done in Ontario and Quebec, while the greatest amount of operational flying is carried out by the Air Force in British Columbia, Alberta and Manitoba.

37.—Statistical Summary of Civil Aviation in Canada, 1923-1928.

Items.	1923.	1924.	1925.	1926.	1927.	1928.
GENERAL ANALYSIS.						
Firms manufacturing aircraft	2	3	2	2	2	4
Firms chiefly operating aircraft	15	8	8	14	20	53
Firms using aircraft as auxiliary service	1	2	2	2	1	1
Aircraft flights made	3,086	3,776	3,171	4,755	16,748	75,285
Aircraft hours flown	2,831	4,389	4,091	5,860	12,070	43,071
Approximate aeroplane mileage	47,505	21,700	29,065	30,290	209,583	1,557,917
Approximate float seaplane mileage	119,168	263,288	218,686	356,481	247,238	797,998
Approximate boat seaplane mileage	–	–	–	–	372,189	352,029
Approximate amphibian mileage	21,425	9,790	8,075	6,332	–	20,341
Total aircraft mileage	188,098	294,778	255,826	393,103	829,010	2,728,414
Average flight duration (minutes)	55	70	77	74	43	32
Number of pilots carried	3,086	3,776	3,171	4,755	16,748	75,285
Number of passengers and crew carried	2,238	5,314	4,897	6,436	18,932	74,669
Total personnel carried	5,324	9,090	8,068	11,191	35,680	149,954
Pilots carried one mile (pilot miles)	188,098	294,778	255,826	393,103	829,010	2,728,414
Passengers and crew carried 1 mile (passenger-miles)	203,500	560,175	446,648	631,715	1,424,031	2,883,782
Total personnel carried 1 mile (personnel-miles)	391,598	854,953	702,474	1,024,818	2,253,041	5,612,196
Total freight or express carried (lb.)	17,600	77,385	592,220	724,721	1,098,346	2,404,682
Total mail carried (lb.)	–	1,221	1,080	3,960	14,684	316,631
LICENSED CIVIL AIR HARBOURS.						
Aerodromes (public)	5	3	3	4	7	20
Aerodromes (private-commercial)	12	9	10	10	10	12
Licensed for Customs	5	3	3	3	5	7
Seaplane stations (public)	2	3	3	3	4	5
Seaplane stations (private-commercial)	11	9	18[1]	16	15	7
Licensed for Customs	2	2	2	2	2	2
Aerodrome-seaplane stations (private-commercial)	1	–	–	–	–	–
Total air harbours (all types)	31	24	34[1]	34	36	44
LICENSED CIVIL AIRCRAFT.[2]						
Airdrome (single-engined)	45	10	11	15	36	136
Aeroplanes (triple-engined)	–	–	–	–	–	3
Float seaplanes (single-engined)	4	1	1	–	17	120
Boat seaplanes (single-engined)	19	20	26	28	21	33
Amphibians (single-engined)	1	1	1	1	–	4
Total aircraft (all types)	69	32	39	44	67	264
LICENSED CIVIL AIR PERSONNEL.						
Pilots only (flying machines)	14	12	18	20	43	258
Pilot-Air Engineers	30	19	18	18	29	70
Air Engineers only (flying machines)	186	170	55	65	74	130
Total licensed personnel	230	201	91	103	148	458
Unlicensed air mechanics employed	18	33	32	43	59	8

[1] 1925 figures include 10 outstanding applications on which fees have been paid.
[2] These figures show duplication, since in several instances the aircraft are used both as landplanes and seaplanes.

Military Aviation.—The Royal Canadian Air Force is responsible for all matters connected with the air defence of Canada, and consists of a headquarters at Ottawa, for administration, intelligence and organization purposes; a land training base at Camp Borden, Ont., and a seaplane training base at Vancouver, B.C.

The present strength of the Air Force is 107 officers and 455 men. (See also "Royal Canadian Air Force", in the Miscellaneous Administration chapter.)

PART VIII.—CANALS.

Before the period of extensive railway construction which commenced for Canada in the 1850's, the water routes, more especially the St. Lawrence, the Great Lakes and the Ottawa, were the chief avenues of transportation. These routes were interrupted at certain points, necessitating portages. The canals of Canada were constructed to eliminate the toil of unloading, transporting and reloading at the portages.

The earliest mention of canals in Canada is in connection with the Lachine canal, begun by early French settlers in 1700, but only after the conquest of Canada by the British were improvements of the main water routes made, and in the early part of the 19th century increased internal and foreign trade and the introduction of steam navigation resulted in more attention being given to this work. Although the canals were constructed primarily for military purposes, they soon became essential to the commercial life of the country.

Section 1.—Canal Systems.

There are in Canada six canal systems under the control of the Dominion Government in connection with navigable lakes and rivers. They consist of the canals (1) between Port Arthur or Fort William and Montreal; (2) from Montreal to the international boundary near lake Champlain; (3) from Montreal to Ottawa; (4) from Ottawa to Kingston and Perth; (5) from Trenton, lake Ontario, to lake Huron (not completed); and (6) from the Atlantic ocean to Bras d'Or lakes, Cape Breton. The total length of the waterways comprised within these systems is about 1,594 statute miles, the actual mileage of canals constructed being 117·2.

A detailed description of the individual canals was given on pp. 626-629 of the 1926 Year Book. Summary statistics of their length and lock dimensions are given in Table 38.

38.—Canals of Canada, Length and Lock Dimensions, 1928.

Names.	Location.	Length in Miles.	Locks.			
			No.	Minimum dimensions.		
				Length.	Width.	Depth
				ft.	ft.	ft.
St. Lawrence—						
Lachine	Montreal to Lachine	8·50	5	270	45	14
Soulanges	Cascades Point to Coteau Landing	14·00	5	280	45	15
Cornwall	Cornwall to Dickinson's Landing	11·25	6	270	45	14
Farran's Point	Farran's Point rapid	1·25	1	800	50	14
Rapide Plat	Rapide Plat to Morrisburg	3·66	2	270	45	14
Galops	Iroquois to Cardinal	7·33	3	800	50	14
Welland	Port Dalhousie, lake Ontario, to Port Colborne, lake Erie	26·75	26	270	45	14
Sault Ste. Marie	St. Mary's rapids, 47 miles west of lake Huron	1·30	1	900	60	19
Richelieu river—						
St. Ours Lock	St. Ours, Que.	0·12	1	200	45	[illegible]
Chambly	Chambly to St. Johns, Que.	12·00	9	118	22·5	[illegible]
Ottawa and Rideau rivers—						
Ste. Anne Lock	Junction of St. Lawrence and Ottawa rivers	0·12	1	200	45	[illegible]
Carillon	Carillon rapids, Ottawa river	0·75	2	200	45	[illegible]
Grenville	Long Sault rapids, Ottawa river	5·75	5	200	45	[illegible]
Rideau	Ottawa to Kingston	126·25	47	134	33	[illegible]
	Rideau lake to Perth (Tay branch)	7·00	2	134	33	6

[1] Navigable depths are occasionally less at times of extremely low water.
[2] Least depths in channels 6·5 ft. [3] Least depths in channels 5 ft.

38.—Canals of Canada, Length and Lock Dimensions, 1928—concluded.

Names.	Location.	Length in Miles.	Locks.			
			No.	Minimum dimensions.		
				Length.	Width.	Depth.
Miscellaneous—				ft.	ft.	ft.
Trent	Trenton to Peterborough lock, Peterborough	89·0	18	175	33	8·4
	Peterborough lock to head of lake Couchiching	114·6	23	134	33	6
	Sturgeon lake to Port Perry (Scugog branch)	35·0	1	142	33	6
	Port Severn lock	–	1	100	25	6
Murray	Bay of Quinte to lake Ontario	5·17	0	–	–	11
St. Peters	St. Peter's bay to Bras d'Or lakes, Cape Breton, N.S.	0·49	1	300	48	18
St. Andrews	Red river, 15 miles north of Winnipeg	–	1	215	45	17

Governmental Expenditure on Canals.—Tables **39** and **40** deal with the expenditure of the Dominion Government on the construction and maintenance of canals. The items of revenue and expenditure, showing in the fiscal year ended 1928 a slightly decreased net outlay as compared with 1927, indicate the net total expended on the maintenance of these water routes. All canals, it may be added, have since 1904 been free of toll to vessels applying for the privilege of locking facilities. The total capital cost of Canadian canals since their construction was begun is set at $203,420,904. The heavy capital expenditures in recent years are due to the construction of the Welland Ship Canal, on which $90,301,957 had been spent up to Mar. 31, 1928.

39.—Total Expenditure and Revenue of Canals, fiscal years ended June 30, 1868-1906, and Mar. 31, 1907-1928.

NOTE.—For the individual years 1868 to 1910, see Canada Year Book, 1916-17, page 462.

Fiscal Years.	Expenditure Chargeable—					Total Expenditure.	Total Revenue.
	To Capital.	To Income.[1]	To Revenue.				
			Staff and Repairs, Canals in general.	Staff.	Repairs.		
	$	$	$	$	$	$	$
Before Confederation	20,593,866	98,378	–	–	–	20,692,244	–
1868-1910	76,388,584	6,465,248	1,594,239	11,695,310	9,488,903	105,632,284	14,156,389
1911	2,349,474	440,270	103,398	511,306	471,530	3,875,978	221,138
1912	2,560,939	442,012	108,651	585,900	555,710	4,254,212	263,717
1913	2,259,257	331,987	121,371	605,248	535,136	3,852,999	307,568
1914	2,829,661	389,285	147,729	642,845	574,039	4,583,559	380,188
1915	5,490,796	444,730	140,236	675,771	552,599	7,314,132	427,763
1916	6,142,149	397,665	139,952	697,532	529,565	7,906,863	446,722
1917	4,304,589	399,414	137,907	700,022	486,168	6,028,100	461,423
1918	1,781,957	111,553	149,859	743,857	540,331	3,327,557	414,868
1919	2,211,935	164,046	155,558	733,091	698,878	3,964,508	387,655
1920	4,579,565	798,113	157,886	745,986	713,335	6,994,885	441,926
1921	5,449,962	1,193,143	192,875	815,979	820,993	8,572,952	365,941
1922	4,482,639	836,810	209,193	983,042	1,105,054	7,616,748	804,516
1923	4,995,184	564,242	204,536	924,217	859,839	7,548,018	742,404
1924	6,747,395	479,900	204,653	980,094	942,056	9,354,098	897,412
1925	10,619,903	458,791	187,579	959,516	853,076	13,078,865	907,650
1926	12,024,461	501,449	182,376	1,046,538	873,682	14,628,536	920,900
1927	13,845,684	451,880	153,776	1,129,041	858,473	16,438,853	961,694
1928	13,762,905	418,719	175,818	1,212,721	1,150,241	16,720,404	1,355,677
Total	**203,420,904**[2]	**15,387,635**	**4,469,604**	**26,388,047**	**22,719,609**	**272,385,798**	**24,865,553**

[1] The income account is of expenditures on buildings and permanent improvements; the revenue account is of expenditure on maintenance only. [2] Including $34,957, chargeable to canals in general and not allocated to particular years.

40.—Capital Expenditure for Construction and Enlargement of Canals for the fiscal years ended 1868-1928 and before Confederation.

Canals.	Expenditure, previous years.	Expenditure, fiscal year 1928.	Total Expenditure
	$	$	$
Beauharnois	1,636,029	–	1,636,029
Carillon and Grenville[1]	4,191,756	–	4,191,756
Chambly	780,996	–	780,996
Cornwall	7,245,804	–	7,245,804
Culbute Lock and Dam	382,391	–	382,391
Lachine	14,132,685	–	14,132,685
Lake St. Francis	75,907	–	75,907
Lake St. Louis	298,176	–	298,176
Murray	1,248,947	–	1,248,947
Rideau	4,214,264	–	4,214,264
Sault Ste. Marie	4,935,809	–	4,935,809
Soulanges	7,904,044	–	7,904,044
Ste. Anne Lock and Canal	1,320,216	–	1,320,216
St. Lawrence River and Canals—			
North Channel	1,995,143	–	1,995,143
River Reaches	483,830	–	483,830
Galops Channel	1,039,896	–	1,039,896
St. Lawrence Ship Canal	133,897	–	133,897
St. Ours Lock	127,229	–	127,229
St. Peters	648,547	–	648,547
Tay	489,599	–	489,599
Trent	19,337,433	40,203	19,377,636
Welland	29,906,412	224[2]	29,906,188
Welland Ship Canal	76,579,031	13,722,926	90,301,957
Williamsburg— Farran's Point	877,091	–	877,091
Williamsburg— Galops	6,143,468	–	6,143,468
Williamsburg— Rapide Plat	2,159,881	–	2,159,881
Williamsburg— Williamsburg	1,334,552	–	1,334,552
Canals in general	34,967	–	34,967
Total	**189,658,000**	**13,762,905**	**203,420,905**

[1] The records relating to cost of construction by Imperial Government were destroyed by fire in 185 and the statistics are not included in this table. [2] Revenue.

Section 2.—Canal Traffic.

Tables **41** to **46** deal with the traffic passing through Canadian canals in recent years up to and including 1928. In this latest year the total traffic of 18,720,441 tons was the highest figure for any year since 1918, being an increase of 1,232,130 tons over the total for 1927 (Table **41**).

Although the navigation season in 1928 was shorter, the heavier traffic almost throughout that year is shown by the monthly figures of Table **42**; Table **43**, showing the products which constitute the freight traffic through the canals, illustrates the preponderance of agricultural products in the total. In the year 1928, six commodities (Table **44**), barley, wheat, general merchandise, pulpwood, soft coal and sand each provided over 1,000,000 tons of freight and together accounted for 77 p.c. of the whole traffic. The increase over the previous year was chiefly due to increased tonnage of wheat, barley, soft coal, coke, iron and steel and general merchandise while large decreases occurred in the quantity of rye and pulpwood handled.

Comparisons of the total traffic through Canadian canals over a period of years are misleading owing to the situation at Sault Ste. Marie. At this point there are canals on both the Canadian and United States sides of the river, which are free to vessels of either nation. In 1914 a third large lock was opened on the United States side and in 1919, a fourth. Thus the tonnage of freight through the Canadian canals at this point dropped from 42,699,324 in 1913 to 7,750,957 in 1915 and from 12,913,711 in 1918 to 2,477,818 in 1920. On the other hand, traffic through the

Welland and St. Lawrence canals has been increasing in recent years and is now much greater than in the pre-war period. Of the traffic increase of 1,232,130 tons in 1928 over 1927, the Welland canal accounted for 192,590 tons and the St. Lawrence canals for 498,590 tons (Tables 45 and 46).

41.—Total Traffic through Canadian Canals during the Navigation Seasons, 1900-1928, by Nationality of Vessel and Origin of Freight[1].

NOTE.—For Canadian canal traffic from 1886 to 1899, see 1902 Year Book, p. 398.

Years	Canadian Vessels.		United States Vessels.		Freight carried.				
					Originating in Canada.		Originating in United States.		Total.
	No.	Registered Tonnage.	No.	Registered Tonnage.	Tons.	P.c. of total.	Tons.	P.c. of total.	Tons.
1900..	21,755	4,129,250	5,502	2,408,985	–	–	–	–	5,013,693
1901..	20,860	3,980,264	5,634	2,482,274	–	–	–	–	5,665,259
1902..	22,198	4,485,695	6,433	4,086,439	–	–	–	–	7,513,197
1903..	23,767	5,212,832	6,695	4,236,475	–	–	–	–	9,203,817
1904..	21,851	4,772,100	6,253	3,655,905	–	–	–	–	8,256,236
1905..	23,726	5,191,191	7,085	5,096,241	–	–	–	–	9,371,744
1906..	25,498	5,526,321	7,319	5,685,315	–	–	–	–	10,523,185
1907..	28,833	6,328,911	9,328	11,604,834	–	–	–	–	20,543,639
1908..	29,040	6,780,789	7,489	8,521,139	5,012,147	28·6	12,490,673	71·3	17,502,820
1909..	22,507	7,811,578	9,996	16,459,322	7,378,057	21·8	26,342,691	78·2	33,720,748
1910..	25,337	8,931,790	11,462	21,777,297	7,883,614	18·3	35,106,994	81·7	42,990,608
1911..	25,585	9,172,192	10,370	18,231,622	7,792,907	20·5	30,237,446	79·5	38,030,353
1912..	27,371	10,237,335	11,785	24,636,190	9,376,529	19·7	38,210,716	80·3	47,587,245
1913..	28,654	12,078,041	10,739	24,238,788	11,130,875	21·3	40,923,038	78·7	52,053,913
1914..	26,125	12,050,856	7,742	15,636,414	9,382,206	25·3	27,641,031	74·7	37,023,237[2]
1915..	21,575	9,398,207	6,415	7,385,101	6,789,423	44·7	8,409,380	55·3	15,198,803
1916..	23,002	9,839,029	6,800	10,660,839	7,486,962	31·7	16,096,529	68·3	23,583,491
1917..	21,588	9,831,694	6,594	10,259,772	5,964,369	26·8	16,274,566	73·2	22,238,935
1918..	18,902	7,800,972	6,791	9,616,200	3,369,477	17·8	15,514,142	82·2	18,883,619
1919..	20,682	8,735,973	4,092	5,259,173	4,865,831	48·7	5,129,435	51·3	9,995,266[3]
1920..	23,038	8,521,643	3,826	3,838,890	4,094,044	46·9	4,641,339	53·1	8,735,383
1921..	25,720	10,079,388	2,969	2,330,178	4,562,028	48·5	4,844,993	51·5	9,407,021
1922..	26,217	11,059,261	3,735	3,165,054	6,273,227	62·1	3,752,828	37·9	10,026,055
1923..	27,112	13,013,970	3,399	3,325,809	7,637,485	68·2	3,561,949	31·8	11,199,434
1924..	27,467	13,988,909	3,233	2,821,177	8,857,177	68·8	4,011,920	31·2	12,869,097
1925..	28,361	14,964,785	3,587	3,824,924	9,570,311	67·7	4,560,356	32·3	14,130,667
1926..	27,965	14,542,485	3,543	3,144,866	9,656,190	71·7	3,821,473	28·3	13,477,663
1927..	36,162	17,472,601	4,013	3,364,461	11,863,931	67·8	5,624,380	32·2	17,488,311
1928..	30,575	17,435,176	3,973	3,270,591	13,882,592	74·2	4,837,849	25·8	18,720,441

[1] Includes duplications where cargoes use two or more canals.
[2] Third lock of United States Sault Ste. Marie canal opened Oct. 21, 1914.
[3] Fourth lock of United States Sault Ste. Marie canal opened Sept. 18, 1919.

42.—Distribution of Total Freight Traffic on Canals, by months, calendar years 1922-1928[1].

Months.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
January.....	80	135	279	63	–	541	535
April.....	236,246	9,320	454,131	488,541	–	673,811	111,161
May.....	1,224,196	1,283,414	1,729,639	1,789,528	1,691,689	2,426,701	2,452,368
June.....	1,252,478	1,631,825	1,834,908	1,789,160	2,309,478	2,497,073	2,583,737
July.....	1,517,609	1,752,463	1,906,300	2,050,895	2,123,356	1,975,204	2,621,168
August.....	1,427,189	1,770,826	1,771,334	2,126,209	1,710,017	2,468,196	2,843,453
September.....	1,507,219	1,589,332	1,704,516	1,928,232	1,880,044	2,596,336	2,502,805
October.....	1,464,493	1,574,497	1,952,133	2,110,830	2,039,909	2,646,216	2,792,983
November.....	1,207,161	1,393,577	1,282,611	1,604,237	1,522,764	2,022,010	2,540,168
December.....	189,384	194,045	233,246	242,972	200,406	182,223	272,063
Total.....	**10,026,055**	**11,199,434**	**12,869,097**	**14,130,667**	**13,477,653**	**17,488,311**	**18,720,441**

[1] Includes duplications where cargoes use two or more canals.

43.—Tonnage of Canal Traffic, by Canals and Classes of Products, calendar years 1927 and 1928[1].

Canals.	Agricultural Products.	Animal Products.	Manufactures.	Forest Products.	Mine Products.	Total.
1927.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Sault Ste. Marie	935,740	617	436,007	28,931	69,256	1,470,5
Welland	5,046,545	–	787,429	355,607	1,057,878	7,247,4
St. Lawrence	5,015,496	7,911	866,961	834,952	1,187,632	7,912,9
Chambly	13,159	316	25,137	88,270	77,654	204,6
St. Peters	3,548	1,825	5,520	5,924	29,489	46,3
Murray	–	–	90	405	217	7
Ottawa	1,636	2,999	37,877	76,436	336,811	455,7
Rideau	544	1,510	22,532	9,939	23,426	57,9
Trent	122	62	1,470	25,873	227	27,7
St. Andrews	538	12	842	14,298	48,641	64,3
Total[1]	**11,017,328**	**15,252**	**2,183,865**	**1,440,635**	**2,831,231**	**17,488,3**
1928.						
Sault Ste. Marie	1,277,100	1,083	526,118	34,235	168,601	2,007,1
Welland	5,294,426	–	912,126	333,706	899,359	7,439,6
St. Lawrence	5,184,954	8,875	948,241	764,386	1,555,086	8,411,5
Chambly	4,733	233	46,600	61,509	66,793	179,8
St. Peters	4,550	1,562	4,542	16,902	25,292	52,8
Murray	56	700	90	–	539	1,3
Ottawa	2,608	2,767	48,797	61,527	372,087	487,7
Rideau	368	1,343	24,553	3,785	21,950	51,9
Trent	51	11	2,033	33,737	479	36,3
St. Andrews	460	123	648	15,622	35,095	51,9
Total[1]	**11,719,306**	**16,697**	**2,513,748**	**1,325,409**	**3,145,281**	**18,720,4**

44.—Principal Articles carried through Canadian Canals during the Navigation Seasons of 1925-1928[1].

Articles.	1925.	1926.	1927.	1928.	Increase in 1923.	Decrease in 1928.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Barley	764,480	803,776	1,039,433	1,306,354	266,921	–
Buckwheat	23	14	26	4	–	22
Corn	87,515	115,598	216,877	119,448	–	97,42
Oats	1,386,928	716,237	307,585	782,000	474,415	–
Rye	586,229	423,871	1,413,541	636,289	–	777,25
Flaxseed	73,995	33,571	63,516	57,616	–	5,90
Peas	75	197	1	30	29	–
Wheat	4,958,130	5,025,808	7,513,489	8,303,353	789,864	–
Flour	426,163	441,143	419,202	470,255	51,053	–
Hay	19,502	19,262	16,678	11,245	–	5,43
Other milled products	20,592	35,894	19,167	22,250	3,083	–
Fruits and vegetables	7,823	4,260	4,759	6,301	1,542	
Potatoes	4,173	3,931	3,054	4,161	1,107	–
Live stock	835	765	681	520	–	16
Poultry, game and fish	2,309	3,909	2,250	2,484	234	–
Dressed meats	109	35	27	12	–	15
Other packing-house products	1,334	899	1,275	3,174	1,899	–
Hides and leather	150	111	92	110	18	–
Wool	37	51	158	445	287	–
All other animal products	10,373	10,387	10,769	9,952	–	81
Agricultural implements	8,461	18,592	35,667	33,994	–	1,67
Cement, bricks and lime	9,240	16,530	58,764	7,961	–	50,80
Household goods and furniture	1,909	2,279	2,689	1,593	–	1,09

[1] Includes duplications where cargoes use two or more canals.

44.—Principal Articles carried through Canadian Canals during the Navigation Seasons of 1925-1928—concluded[1].

Articles.	1925.	1926.	1927.	1928.	Increase in 1928.	Decrease in 1928.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Iron, pig and bloom	51,725	67,953	62,733	91,517	28,784	–
Iron and steel, all other	269,845	496,092	531,200	645,885	114,685	–
Petroleum and other oils	216,809	238,470	333,052	384,829	51,777	–
Sugar	153,456	175,901	205,832	263,101	57,269	–
Salt	18,241	17,213	23,485	19,588	–	3,897
Wines, liquors and beer	7,860	5,308	10,098	14,313	4,215	–
Merchandise not enumerated	683,340	706,610	920,345	1,050,967	130,622	–
Pulpwood	1,017,203	1,056,352	1,167,385	1,062,898	–	104,487
Sawed lumber	239,372	223,526	229,343	217,482	–	11,861
Squared timber	7,384	3,478	8,970	5,077	–	3,893
Shingles	1,955	1,052	2,256	693	–	1,563
Other woods	33,017	35,065	32,631	39,259	6,578	–
Hard coal	156,669	154,622	117,332	103,163	–	14,169
Soft coal	2,136,585	1,572,004	1,244,253	1,391,588	147,335	–
Coke	4,277	23,012	10,361	124,685	114,324	–
Copper ore	26,199	10,126	10,230	41,121	30,891	–
Iron ore	24,814	49,982	72,856	153,663	80,807	–
Other ore	82,005	58,775	59,314	44,348	–	14,966
Sand, etc	629,526	904,102	1,316,885	1,286,713	–	30,172
Total[1]	**14,130,667**	**13,477,663**	**17,488,311**	**18,720,441**	**1,232,130**	–

45.—Canal Traffic during the Navigation Seasons of 1927 and 1928, by Direction and Origin[1].

Canals.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.	
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.
1927.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Sault Ste. Marie	382,530	882,511	7,725	31,842	22,998	12,523	55,133	75,289
Welland	629,987	3,614,420	166,956	–	114,134	80,462	6,675	2,637,825
St. Lawrence[2]	1,189,798	3,657,042	488,506	23,429	80,848	2,779	25,107	2,445,443
Chambly	8,099	9,292	99,023	240	–	–	1,478	86,404
St. Peters	10,873	31,923	2,000	1,510	–	–	–	–
Murray	412	25	83	–	–	–	192	–
Ottawa	28,507	395,493	–	23,873	–	–	7,886	–
Rideau	42,498	14,017	–	–	–	–	–	1,436
Trent	13,499	14,255	–	–	–	–	–	–
St. Andrews	61,620	2,711	–	–	–	–	–	–
Total	**2,364,823**	**8,621,689**	**764,293**	**80,894**	**217,980**	**95,764**	**96,471**	**5,246,397**
1928.								
Sault Ste. Marie	471,249	1,241,023	3,380	72,703	26,410	31,825	65,982	94,565
Welland	651,725	3,411,818	202,221	16,140	104,436	101,072	11,351	2,940,854
St. Lawrence[2]	1,236,186	3,549,801	472,682	37,861	34,347	8,635	41,373	3,030,657
Chambly	7,566	4,037	87,256	–	–	–	–	81,009
St. Peters	14,149	34,109	–	4,590	–	–	–	–
Murray	275	558	13	–	–	–	–	539
Ottawa	32,151	420,038	–	24,676	–	–	10,921	–
Rideau	43,127	8,742	–	130	–	–	–	–
Trent	12,483	23,828	–	–	–	–	–	–
St. Andrews	49,474	2,474	–	–	–	–	–	–
Total	**2,518,385**	**8,696,428**	**765,552**	**156,100**	**165,193**	**141,532**	**129,627**	**6,147,624**

[1] Includes duplications where cargoes use two or more canals.
[2] Includes only the canals on the St. Lawrence river between Lachine and lake Ontario.

45.—Canal Traffic during the Navigation Seasons of 1927 and 1928, by Direction and Origin—concluded[2].

Canals.	Total Traffic by Direction.		Origin of Cargo.		Total Cargo.	Increase (+) or decrease (−) on previous year.
	Up.	Down.	Canada.	United States.		
1927.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Sault Ste. Marie	468,386	1,002,165	1,307,997	162,644	1,470,551	+ 47,27
Welland	914,752	6,332,707	4,482,350	2,765,109	7,247,459	+ 2,032,9
St. Lawrence[1]	1,784,259	6,128,693	5,400,615	2,512,337	7,912,952	+ 1,789,2
Chambly	108,600	95,936	116,709	87,827	204,536	+ 49
St. Peters	12,873	33,433	46,306	–	46,306	+ 2,7
Murray	687	25	520	192	712	− 18
Ottawa	36,393	419,366	447,873	7,886	455,759	+ 134,3
Rideau	42,498	15,453	57,947	4	57,951	+ 1,8
Trent	13,499	14,255	27,754	–	27,754	+ 6
St. Andrews	61,620	2,711	64,331	–	64,331	+ 1,8
Total	**3,443,567**	**14,044,744**	**11,952,312**	**5,535,999**	**17,488,311**	**+ 4,010,6**
1928.						
Sault Ste. Marie	567,021	1,440,116	1,794,880	212,257	2,007,137	+ 536,8
Welland	969,733	6,469,884	5,178,605	2,261,012	7,439,617	+ 192,1
St. Lawrence[1]	1,784,588	6,626,954	6,139,402	2,272,140	8,411,542	+ 498,5
Chambly	94,822	85,046	98,680	81,188	179,868	− 24,6
St. Peters	14,149	38,699	52,848	–	52,848	+ 6,5
Murray	288	1,097	846	539	1,385	+ 6
Ottawa	43,072	444,714	477,073	10,713	487,786	+ 32,0
Rideau	43,127	8,872	51,999	–	51,999	− 5,9
Trent	12,483	23,828	36,311	–	36,311	+ 8,5
St. Andrews	49,474	2,474	51,948	–	51,948	− 12,3
Total	**3,578,757**	**15,141,684**	**13,882,592**	**4,837,849**	**18,720,441**	**+ 1,232,1**

[1] Includes only the canals on the St. Lawrence river between Lachine and lake Ontario.
[2] Includes duplications where cargoes use two or more canals.

46.—Traffic through individual Canadian Canals during the Navigation Seasons 1924-1928.

Canals and Years.	Canadian Vessels.		United States Vessels.		Total Passengers.	Total freight carried.
	No.	Registered Tonnage.	No.	Registered Tonnage.		
		Tons.		Tons.	No.	Tons.
Sault Ste. Marie—						
1924	2,840	3,406,744	476	1,585,827	34,367	1,631,548
1925	2,889	3,408,387	645	2,279,160	34,743	1,634,97
1926	2,693	3,357,785	657	1,594,186	32,099	1,423,27
1927	2,818	3,269,942	421	1,214,782	34,483	1,470,55
1928	2,940	3,415,478	418	1,171,011	34,289	2,007,13
Welland—						
1924	4,654	4,359,552	707	656,959	614	5,037,412
1925	5,014	4,732,951	852	834,185	10	5,640,29
1926	4,741	4,340,398	787	712,648	25	5,214,514
1927	6,504	5,811,180	1,150	1,039,417	–	7,247,45
1928	5,365	5,598,493	1,222	1,051,464	–	7,439,617
St. Lawrence—						
1924	10,835	5,449,593	703	433,213	78,450	5,536,37
1925	11,753	6,062,833	803	567,394	82,848	6,206,98
1926	12,671	5,946,289	857	696,124	81,128	6,123,70
1927	13,860	7,370,693	1,110	960,201	87,567	7,912,95
1928	13,152	7,416,426	1,258	922,377	85,926	8,411,542
Chambly—						
1924	491	65,398	1,032	123,092	844	225,518
1925	453	63,610	1,023	119,931	661	203,720
1926	510	65,834	943	110,241	833	204,042
1927	541	67,402	870	107,370	609	204,536
1928	414	52,679	750	93,983	446	179,868
St. Peters—						
1924	1,363	87,072	15	819	298	51,929
1925	1,183	76,622	13	4,741	213	35,691
1926	990	65,507	18	3,976	208	43,545
1927	903	58,840	19	5,345	302	46,306
1928	964	65,306	20	6,287	178	52,848

.—Traffic through individual Canadian Canals during the Navigation Seasons, 1924-1928—concluded.

Canals and Years.	Canadian Vessels.		United States Vessels.		Total Passengers.	Total freight carried.
	No.	Registered Tonnage.	No.	Registered Tonnage.		
		Tons.		Tons.	No.	Tons.
rray—						
1924	305	37,382	81	1,221	3,673	2,715
1925	351	45,245	142	1,458	3,377	1,174
1926	313	106,843	63	10,466	7,506	895
1927	440	104,893	141	10,724	8,339	712
1928	290	46,081	86	1,282	2,325	1,385
tawa—						
1924	2,140	291,123	173	18,900	25,067	205,534
1925	2,095	301,629	151	16,226	28,545	214,940
1926	2,422	415,257	151	15,696	23,010	321,456
1927	3,017	553,140	193	23,055	27,565	455,759
1928	3,694	606,187	178	23,014	24,116	487,786
ideau—						
1924	1,408	102,842	11	542	3,345	85,986
1925	1,458	103,503	38	1,533	4,359	85,785
1926	1,052	77,755	18	722	2,931	56,052
1927	1,139	84,081	30	1,525	3,803	57,951
1928	936	78,368	19	685	1,441	51,999
ent—						
1924	3,044	120,904	35	604	61,929	41,099
1925	2,681	98,162	20	296	53,936	36,302
1926	2,171	85,851	49	807	49,727	27,692
1927	2,577	82,411	79	2,042	47,954	27,754
1928	2,456	81,899	22	488	39,291	36,311
. Andrews—						
1924	387	68,299	–	–	–	50,982
1925	384	71,843	–	–	–	70,799
1926	402	80,966	–	–	14	62,491
1927	350	70,019	–	–	262	64,331
1928	364	74,259	–	–	138	51,948
ummary[1]—						
1924	27,467	13,988,909	3,233	2,821,177	208,587	12,869,097
1925	28,261	14,964,785	3,687	3,824,924	208,692	14,130,667
1926	27,965	14,542,485	3,543	3,144,866	197,561	13,477,663
1927	36,162	17,472,601	4,013	3,364,461	210,884	17,488,311
1928	30,575	17,435,176	3,973	3,270,591	188,150	18,720,441

[1] Includes duplications where vessels use two or more canals.

The Panama Canal.—The Panama canal, which was opened to commercial affic on Aug. 15, 1914, is a waterway which is destined to be of the greatest importnce to the British Columbian ports, from which vessels now leave direct for Great ritain and European ports throughout the year. As an alternative route to nat of the transcontinental railway lines, such a passage by water is of vital importnce in the solution of the larger transportation problems of the continent, and hile its influence is perhaps more potential than actual, such a check on transontinental rail rates is a valuable one. During the war the great expectations ased upon the opening of the canal were not realized, owing to the scarcity of hipping, but with the post-war decline in ocean freight rates an increase in traffic etween our Pacific ports and Europe is occurring, and while the proportion carried n vessels of Canadian registry is comparatively small, the cargo tonnage has evertheless assumed considerable proportions. During the year ended June 30, 928, as will be seen from Table 47, a tonnage of 168,287 originating on our eastern oast and a total of 268,960 tons destined for our western coast was carried westward hrough the canal. The greater importance of the route as one from Pacific to tlantic ports is illustrated by the total of 2,845,675 tons from western ports and 94,173 tons destined for eastern Canadian ports, locked through on the voyage astward. The canal is thus becoming an avenue of trade between Eastern and Western Canada.

The report of the Governor of the Panama Canal Zone for the year ended Jun 30,.1928, records increases from 1927 of from 5,475 to 6,456 in the number of transi s from 26,227,815 to 29,458,634 in canal net tonnage, from $24,228,830 to $26,944,5 in tolls collected, and from 27,748,215 to 29,630,709 in tons of cargo carri (Table 48).

With respect to traffic by nationality of vessels and cargo carried, vessels United States' registration carried 14,248,735 tons, or 48·1 p.c. of the total ca of 29,630,709 tons locked through in the year 1928. British vessels carried 8,075,0 tons, or 27·2 p.c., Japanese vessels 1,041,166 tons, or 3·5 p.c., German vess 1,185,421 tons, or 4·0 p.c., and Norwegian vessels 1,268,124 tons, or 4·2 p.c.

47.—Traffic to and from the East and West Coasts of Canada via the Panama Ca years ended June 30, 1921-1928.[1]

Years.	From		To	
	Canada West Coast.	Canada East Coast.	Canada West Coast.	Canada East Coa
	long tons.	long tons.	long tons.	long tons
1921	125,638	39,561	126,414	16,5
1922	180,981	25,174	148,305	6,8
1923	604,546	92,939	101,588	125,2
1924	1,223,102	110,677	141,086	197,2
1925	1,082,282	121,803	158,709	379,2
1926	1,650,855	160,196	168,295	614,5
1927	1,548,783	207,003	248,009	803,4
1928	2,845,675	168,287	268,960	394,1

[1] Figures supplied by courtesy of the Governor of the Panama Canal Zone.

48.—Summary of Commercial Traffic through the Panama Canal, years ended Jun 30, 1915-1928.[1]

Years.	Atlantic to Pacific.		Pacific to Atlantic.		Total Traffic.	
	Vessels.	Cargo Tonnage.	Vessels.	Cargo Tonnage.	Vessels.	Cargo Tonnage
	No.	long tons.	No.	long tons.	No.	long tons
1915	522	2,070,993	553	2,817,461	1,075	4,888,4
1916	396	1,369,019	362	1,725,095	758	3,094,1
1917	874	2,929,260	929	4,129,303	1,803	7,058,5
1918	915	2,639,300	1,154	4,892,731	2,069	7,532,0
1919	857	2,740,254	1,167	4,176,367	2,024	6,916,6
1920	1,180	4,092,516	1,298	5,281,983	2,478	9,374,4
1921	1,471	5,892,078	1,421	5,707,136	2,892	11,599,2
1922	1,509	5,495,934	1,227	5,388,976	2,736	10,884,9
1923	2,125	7,086,259	1,842	12,481,616	3,967	19,567,8
1924	2,740	7,860,100	2,490	19,134,610	5,230	26,994,7
1925	2,413	7,398,397	2,260	16,560,439	4,673	23,958,8
1926	2,760	8,037,097	2,437	18,000,351	5,197	26,037,4
1927	2,888	8,583,327	2,587	19,164,888	5,475	27,748,2
1928	3,384	8,310,134	3,072	21,320,575	6,456	29,630,7

[1] Figures supplied by courtesy of the Governor of the Panama Canal Zone.

PART IX.—SHIPPING AND NAVIGATION.

Canadian shipping may be divided into two classes, ocean and inland shi ping. Whereas, in the case of most countries of such an extensive coast line, t former is much the more important, in Canada shipping on inland waters, whil finally dependent to a large extent on ocean traffic to foreign ports, shares almo equally with that on the Atlantic and Pacific oceans the attention devoted to wat traffic. The Great Lakes are among the leading highways of the internationa trade of the world; consequently the statistics of inland international shipping a

:luded with those of sea-going shipping in Table **49**, while those of sea-going pping alone will be found in Table **50**. In both tables the figures of tons gister for 1928 are the highest on record.

—**Sea-going and Inland Vessels (exclusive of Coasting Vessels) arrived at and departed from Canadian Ports, fiscal years ended June 30, 1901-1906, and March 31, 1907-1928.**

NOTE.—For the years 1868–1900, see Canada Year Book, 1911, p. 380.

Fiscal Years.	British.		Canadian.		Foreign.		Total Tonnage.
	No.	Tons Register.	No.	Tons Register.	No.	Tons Register.	
.....	4,319	6,694,133	30,211	8,540,089	33,302	10,795,586	26,029,808
.....	4,363	6,865,924	33,202	9,654,528	40,148	13,504,952	30,025,404
.....	4,647	7,753,788	31,534	10,482,940	53,545	15,418,315	33,655,043
.....	4,997	8,045,817	30,934	9,955,290	35,739	13,201,098	31,202,205
.....	4,614	8,034,652	29,729	11,047,447	35,647	13,195,721	32,277,820
.....	5,104	9,059,453	32,239	11,241,915	37,644	14,430,804	34,732,172
(9 mos.).....	4,488	7,576,721	30,654	11,582,409	25,263	11,436,761	30,595,891
.....	6,356	10,329,515	28,795	11,717,846	40,461	17,527,670	39,575,031
.....	5,795	10,405,370	29,247	13,805,790	38,677	16,490,443	40,701,603
.....	5,780	11,038,709	28,635	15,680,534	41,650	17,848,748	44,567,991
.....	6,870	12,712,337	29,670	16,380,146	40,892	18,337,062	47,429,545
.....	6,766	13,342,929	27,949	18,069,983	45,399	21,560,215	52,973,127
.....	7,307	13,896,353	42,624	20,677,938	47,303	23,275,492	57,849,783
.....	7,418	15,711,849	30,234	17,025,121	55,835	29,181,513	61,919,483
.....	6,949	13,931,091	29,359	17,504,751	48,635	22,168,311	53,604,153
.....	6,817	12,417,944	37,900	17,372,836	75,411	27,930,318	57,721,098
.....	7,387	16,144,873	39,978	20,290,252	74,850	29,277,419	65,712,544
.....	7,337	16,959,790	34,786	19,890,461	70,781	29,952,237	66,802,488
.....	6,099	14,054,166	37,023	17,567,061	52,273	21,607,821	53,229,048
.....	5,511	12,320,994	37,388	16,869,619	52,827	20,302,920	49,493,533
.....	4,526	10,545,619	39,877	22,236,962	50,370	21,866,049	54,648,630
.....	4,239	10,471,403	36,679	20,029,572	61,114	26,164,278	56,665,253
.....	4,869	13,868,905	59,364	26,423,287	87,199	32,110,991	72,403,183
.....	5,187	15,158,994	53,945	28,216,588	80,700	31,571,791	74,947,373
.....	5,763	16,463,204	44,432	26,620,979	84,094	34,854,868	77,939,051
.....	6,515	17,749,067	34,010	23,149,028	55,109	34,348,732	75,246,827
.....	6,448	18,117,525	34,015	25,692,591	62,344	33,521,543	77,331,659
.....	6,253	18,738,027	38,497	28,453,951	67,771	36,611,819	83,803,797

Section 1.—Ocean Shipping.

Canadian ocean shipping dates back to the days of early European fishermen o frequented the shores of Newfoundland and the Maritime Provinces. Ocean-ng vessels of that time were crude, wooden sailing craft of but 20 or 30 tons den, to be entrusted only to skillful and hardy mariners for navigation through rly unknown seas. Later exploration and settlement produced a larger volume raffic, but it was not until the building of ships in Canada by the French assumed ne dimensions that traffic became important. The first ocean-going vessels in nada were probably built by Pont-Gravé, one of the first settlers in New France, soon afterwards Talon and Hocquart, intendants of the colony, realizing the antages offered to the industry by the timber resources available, gave it every ouragement. Shipyards were established at Quebec and other points along the Lawrence, and these, together with later establishments in the Maritime vinces and on the western coast, have formed the principal bases of Canadian pping on the Atlantic and the Pacific.

Canadian shipping attained some prominence in the days of fast wooden sailing sels, and also at a later date when steam power first came into use. In 1833 the

Royal William, a Canadian ship built to ply between Quebec and Halifax, cross the Atlantic from Pictou to London, the first vessel to navigate the Atlantic unc steam power. A few years later Samuel Cunard established the well known stea ship line of that name. His company pursued a conservative course; wooden sh were used long after iron hulls were a proven success, and paddle wheels after t introduction of the screw propeller. By 1867 the company's business had shift to New York, and its terminal was moved thither from Halifax. The Allan l had a somewhat similar early history, but remained a purely Canadian company. addition to other lines of less importance, both the C.P.R. and the Dominion Gove ment operate fleets on the Atlantic and the Pacific oceans.

In the following tables, statistics are given of sea-going vessels entered a cleared at Canadian ports during the fiscal years from 1901 to 1928 (Table **50**), the nationalities, tonnage of freight carried and number of crew of vessels ent and cleared at Canadian ports in the fiscal years ended 1927 and 1928 (Table 5 of entrances and clearances of sea-going ships at the principal ports (Table **56**), a of the countries whence arrived and to which departed (Table **52**). The numb and particularly the tonnage of vessels entered and cleared at Canadian ports both ocean and coasting trade, indicate clearly the predominance of British Canadian shipping over that of all other nations. This is particularly the c on the Atlantic coast, where the bulk of our European and South Ameri trade is handled. Figures for 1928 show continued revival in the shipping indust

50.—Sea-going Vessels entered and cleared at Canadian Ports with Cargo and Ballast, fiscal years ended June 30, 1901-1906, and Mar. 31, 1907-1928.

NOTE.—For corresponding figures for the years 1868-1900, see Canada Year Book, 1911, p. 379.

Fiscal Years.	British.		Canadian.		Foreign.		Total Tonnage
	No.	Tons Register.	No.	Tons Register.	No.	Tons Register.	
1901	4,319	6,694,133	9,910	1,677,138	12,476	6,171,791	14,543
1902	4,363	6,865,924	11,413	1,937,227	14,530	5,928,337	14,73
1903	4,647	7,753,788	11,282	2,085,568	12,403	6,001,819	15,84
1904	4,997	8,045,817	11,045	1,979,803	14,002	5,801,085	15,82
1905	4,614	8,034,652	11,279	2,269,834	11,904	5,283,969	15,58
1906	5,104	9,059,453	12,201	2,304,942	12,511	5,479,034	16,84
1907 (9 mos.)	4,488	7,576,721	7,880	1,899,141	8,107	4,429,012	13,90
1908	6,356	10,329,515	10,562	2,606,660	12,886	6,555,096	19,49
1909	5,795	10,405,370	10,946	2,806,278	13,441	6,554,228	19,76
1910	5,780	11,038,709	10,875	3,498,361	13,147	6,267,243	20,80
1911	6,870	12,712,337	10,607	3,341,998	12,467	6,242,851	22,29
1912	6,766	13,342,929	10,966	4,618,163	15,134	6,628,513	24,58
1913	7,307	13,896,353	11,810	4,530,835	16,549	7,803,910	26,23
1914	7,418	15,711,849	12,786	5,160,799	15,811	8,695,838	29,56
1915	6,949	13,931,091	11,903	4,005,011	15,060	7,466,484	25,49
1916	6,817	12,417,944	12,386	3,894,731	18,559	8,514,975	24,82
1917	7,387	16,144,873	12,241	4,343,448	18,500	8,778,753	29,26
1918	7,337	16,959,790	10,998	4,343,853	16,597	11,483,484	32,78
1919	6,099	14,054,166	11,115	3,758,528	15,132	7,448,699	25,26
1920	5,511	12,320,994	11,994	4,434,634	17,353	8,489,126	25,24
1921	4,526	10,545,619	12,490	5,510,484	17,624	8,860,626	24,91
1922	4,239	10,471,403	14,929	6,861,202	17,170	10,261,865	27,59
1923	4,869	13,868,905	16,693	7,463,809	17,493	12,945,623	34,27
1924	5,187	15,158,994	16,778	7,698,045	16,795	14,161,363	37,01
1925	5,763	16,463,204	17,779	7,966,193	17,314	16,551,629	40,98
1926	6,515	17,749,067	17,906	9,703,054	18,117	18,202,875	45,65
1927	6,448	18,117,525	16,746	8,926,138	19,111	19,106,106	46,14
1928	6,253	18,738,027	16,716	9,021,264	18,561	20,455,343	48,21

—Sea-going Vessels (exclusive of Coasting Vessels) entered and cleared at Canadian Ports during the fiscal years ended Mar. 31, 1927 and 1928.

Nationalities.	Number of Vessels.	Tons Register.	Freight.		Number of Crew.
			Tons Weight.	Tons Measurement.	
1927.					
ENTERED.					
itish	3,257	9,453,911	1,243,369	279,413	242,703
nadian	8,410	4,385,425	1,334,012	50,215	171,122
reign	9,715	9,384,945	2,906,404	43,178	218,850
Total	**21,382**	**23,224,281**	**5,483,785**	**372,806**	**632,675**
CLEARED.					
tish	3,191	8,663,614	4,972,378	414,037	218,625
nadian	8,336	4,540,713	1,889,249	234,458	176,394
reign	9,396	9,721,161	5,439,591	466,837	225,167
Total	**20,923**	**22,925,488**	**12,301,218**	**1,115,332**	**620,186**
TOTAL ENTERED AND CLEARED.					
tish	6,448	18,117,525	6,215,747	693,450	461,328
nadian	16,746	8,926,138	3,223,261	284,673	347,516
reign	19,111	19,105,106	8,345,995	510,015	444,017
Total	**42,305**	**45,149,769**	**17,785,003**	**1,488,138**	**1,252,861**
1928.					
ENTERED.					
tish	3,156	9,757,675	1,741,153	270,750	247,048
nadian	8,383	4,473,195	1,823,916	42,530	172,270
reign	9,364	10,009,977	3,082,081	64,329	238,482
Total	**20,903**	**24,240,847**	**6,647,150**	**377,609**	**657,800**
CLEARED.					
tish	3,097	8,980,352	6,220,243	411,779	223,064
nadian	8,333	4,548,069	1,464,502	266,691	180,357
eign	9,197	10,445,366	6,564,318	739,310	240,308
Total	**20,627**	**23,973,787**	**14,249,063**	**1,417,780**	**643,729**
TOTAL ENTERED AND CLEARED.					
tish	6,253	18,738,027	7,961,396	682,529	470,112
nadian	16,716	9,021,264	3,288,418	309,221	352,627
eign	18,561	20,455,343	9,646,399	803,639	478,790
Total	**41,530**	**48,214,634**	**20,896,213**	**1,795,389**	**1,301,529**

—Sea-going Vessels entered and cleared, by Principal Countries, fiscal year ended Mar. 31, 1928.

VESSELS ENTERED INWARDS.

Countries whence arrived.	British.			Canadian.			Foreign.		
	No. of Vessels.	Tons Register.	Crew No.	No. of Vessels.	Tons Register.	Crew No.	No. of Vessels.	Tons Register	Crew No.
at Britain	1,078	5,451,071	145,247	141	242,290	3,295	178	345,575	5,021
tralia	53	325,572	8,289	26	94,353	1,079	13	38,943	441
g Kong	20	162,408	4,270	–	–	–	–	–	–
ish West Indies	26	43,053	888	169	287,210	5,300	90	102,261	2,114
vfoundland	688	497,709	17,000	222	153,281	4,596	159	305,858	4,122
er Br. possessions	64	245,533	4,503	9	30,434	384	17	46,878	609
entina	31	80,712	1,014	–	–	–	28	86,782	984
gium	58	433,995	14,812	56	147,253	2,058	40	159,632	1,665
ia	22	161,418	4,170	–	–	–	29	133,672	1,983
mbia	6	26,484	206	21	117,346	806	26	121,312	895
mark	–	–	–	–	–	–	56	273,796	9,157
ce	14	59,510	944	–	–	–	79	227,239	5,737
many	37	192,561	4,830	–	–	–	109	418,518	9,385
and	32	153,053	1,832	2	6,653	84	142	597,329	9,671
y	31	90,667	1,053	–	–	–	50	188,268	2,012
n	70	284,944	4,374	27	211,802	12,392	284	1,277,037	20,612
ico	4	8,668	158	1	520	18	5	17,390	171
way	–	–	–	–	–	–	42	194,892	5,424
d	1	4,414	35	23	136,856	962	3	6,041	101
Pierre	66	5,673	353	82	14,086	713	151	40,003	4,444
n	5	6,163	92	–	–	–	17	34,090	446
den	–	–	–	–	–	–	31	173,675	4,660
ed States	405	1,304,114	23,530	5,490	2,942,758	123,522	5,981	4,936,924	125,415
fisheries	359	33,279	5,479	2,081	79,393	17,056	1,546	95,807	20,037
n Sea	34	29,556	2,037	28	2,069	143	114	9,751	964
Total[1]	**3,156**	**9,757,675**	**247,048**	**8,383**	**4,473,195**	**172,270**	**9,364**	**10,009,977**	**238,482**

[1] Includes other countries not specified.

52.—Sea-going Vessels entered and cleared, by Principal Countries, fiscal year ende Mar. 31, 1928—concluded.

VESSELS CLEARED OUTWARDS.

Countries to which departed.	British.			Canadian.			Foreign.		
	No. of Vessels.	Tons Register.	Crew No.	No. of Vessels.	Tons Register.	Crew No.	No. of Vessels.	Tons Register	Crew No
Great Britain	861	4,223,283	105,422	116	238,702	3,171	235	535,741	6 5
Australia	39	272,103	7,745	23	80,594	921	26	77,995	9
British Oceania	5	17,743	246	–	–	–	5	13,912	1
British South Africa	22	84,202	1,156	–	–	–	13	36,824	4
British West Indies	9	14,476	206	75	112,654	1,982	59	81,881	1,4
Newfoundland	633	491,475	16,282	267	170,473	5,051	158	299,818	4 C
New Zealand	33	123,205	2,012	20	66,696	832	17	51,992	5
British Guiana	5	6,393	214	36	91,745	1,626	36	40,452	8
Hong Kong	20	164,868	4,339	8	70,688	4,365	–	–	
Other Br. possessions	20	67,925	899	8	17,568	464	5	7,598	
Argentina	–	–	–	–	–	–	31	98,399	1,(
Belgium	73	312,562	8,369	19	45,204	672	58	198,240	2
China	10	62,642	1,253	3	26,555	1,637	41	219,032	3
Colombia	5	19,680	169	27	146,316	1,028	22	41,861	
Cuba	24	46,674	1,107	3	1,028	20	33	41,928	
Denmark	3	5,633	83	–	–	–	39	102,028	1
France	15	60,185	1,490	–	–	–	48	141,242	1
Germany	140	485,749	8,185	3	16,487	235	166	501,102	6
Greece	6	17,440	186	–	–	–	17	45,680	
Holland	97	284,011	3,346	2	6,654	84	109	322,179	3
Italy	20	52,154	615	–	–	–	132	468,013	4
Japan	56	291,756	6,182	17	122,992	6,274	306	1,333,444	20
Mexico	2	6,276	82	5	1,355	45	20	84,710	
Norway	–	–	–	–	–	–	52	130,853	2
Peru	–	–	–	14	79,899	573	6	19,852	
St. Pierre	59	9,106	526	108	16,842	982	70	14,689	1
United States	437	1,703,838	41,102	5,389	3,144,582	130,979	5,903	5,239,136	146
Sea fisheries	433	34,867	8,451	2,135	86,836	19,154	1,406	109,571	21
Sweden	4	7,402	116	–	–	–	28	96,667	2
For Sea	35	29,939	2,095	31	500	116	130	13,500	1
Total[1]	3,097	8,989,352	223,064	8,333	4,548,069	189,357	9,197	10,445,366	249

[1]Includes other countries not specified.

Section 2.—Inland Shipping.

Inland shipping is associated in its beginnings with the birch-bark canoe of t American Indian. The advantages of this light and easily navigable boat w realized by explorers and fur traders, and for many years it was in general u giving way to more substantial craft only with the demands of heavier tra The "bateau" and Durham boat came into common use after the migration of U.E. Loyalists, and, on the St. Lawrence and the other main highways of the ti they also soon gave place to larger vessels. Original plans of the Lachine ca which called for a width of 12 feet and a depth of 18 inches, afford an illustrat of the size of these primitive craft.

In the absence of any roads to make land travel possible, the St. Lawre river and the Great Lakes formed the main highway to the interior. The ro from Montreal to the Upper Lakes was broken at three places—from Mont to Kingston transportation was by "bateau" or Durham boat, from Kingston Queenston schooners were used, then there was the portage road from Queens to Chippawa and, finally, schooner again to the destination. The charge for tra porting a barrel of rum from Montreal to Kingston was from $3.00 to $3.50, freight charges on other goods were proportions of the rate on this standard arti

In 1809, the "Accommodation", the first Canadian steamship, was built the Hon. John Molson, to run between Montreal and Quebec. By 1818 Mol formed a company, the St. Lawrence Steamship Company or the Molson Li

On lake Ontario, the "Frontenac", beginning with 1817, was used on a weekly service between York and Prescott, and following this beginning came a period of great activity in lake and river shipping. In 1845, the "Gore" reached lake Huron by way of the Welland canal to carry on transport trade on the Upper Lakes, where previously there had not been enough traffic to support a large ship. Shipping on the Upper Lakes became brisker now, for there were settlers to be carried from Buffalo to the western United States and grain to be brought back. In this period Canadian shipping made its profit by carrying American goods, for there was little traffic originating in the Canadian near-West.

The period from 1850 to the present has witnessed a proportionate decline in inland shipping, owing to the competition of railways. Considerable traffic is still carried over water routes, however, and the transport of grain, coal and iron ore now forms the "*raison d'être*" of considerable fleets of cargo boats on the Great Lakes.

Inland International Shipping.—Statistics of the inland international shipping between Canadian and United States ports for the fiscal years ended 1924-1928, exclusive of ferriage, are given in Table **53**. The total tonnage of inland international shipping entered and cleared in the fiscal years 1920-1928, was as follows:—1920, 24,248,779; 1921, 29,731,901; 1922, 29,070,783; 1923, 38,124,846; 1924, 37,928,971; 1925, 36,958,025; 1926, 29,591,831; 1927, 31,181,890; 1928, 35,589,163.

53.—Canadian and American Vessels trading on Rivers and Lakes between Canada and United States, exclusive of ferriage, fiscal years ended Mar. 31, 1924-1928.

Items.	1924.	1925.	1926.	1927.	1928.
VESSELS ARRIVED—					
Canadian—					
Steam and motor.....No.	17,647	12,180	7,212	7,919	9,946
Tons register.....	9,903,534	8,741,668	6,128,817	7,933,752	8,689,990
Number of crew.....	343,799	294,872	252,450	255,678	276,095
Sail.....No.	955	969	670	490	330
Tons register.....	336,129	372,125	236,707	150,331	101,618
Number of crew.....	4,380	4,610	3,391	1,968	1,380
American—					
Steam and motor.....No.	30,534	32,058	17,028	19,718	23,769
Tons register.....	8,245,561	8,086,451	7,369,366	6,242,647	7,609,732
Number of crew.....	246,367	258,500	162,788	157,202	179,096
Sail.....No.	1,178	1,205	1,130	1,749	1,028
Tons register.....	441,752	415,861	382,209	535,366	344,292
Number of crew.....	4,047	3,713	3,522	3,999	2,993
Description of vessels—					
Steam and motor, screw.....No.	46,502	42,790	22,561	25,864	31,698
Steam and motor, paddle..... "	1,668	1,441	1,670	1,538	2,008
Steam and motor, sternwheel.... "	11	7	9	235	9
Sail, schooners..... "	269	307	190	127	97
Sail, sloops..... "	30	20	14	14	
Sail, barges..... "	1,834	1,847	1,596	2,098	1,261
VESSELS DEPARTED—					
Canadian—					
Steam and motor.....No.	17,658	12,552	7,582	8,315	11,157
Tons register.....	9,919,753	9,149,896	6,848,899	8,520,689	10,550,279
Number of crew.....	334,648	298,830	255,847	258,618	282,831
Sail.....No.	907	952	640	545	348
Tons register.....	359,127	391,097	231,551	161,681	90,800
Number of crew.....	4,509	4,577	3,388	2,175	1,453
American—					
Steam and motor.....No.	30,740	32,311	17,489	19,915	23,239
Tons register.....	8,245,120	9,395,826	7,987,121	7,102,418	7,834,436
Number of crew.....	249,887	261,490	164,329	166,775	195,173
Sail.....No.	1,453	1,196	1,345	1,851	1,174
Tons register.....	477,995	405,101	407,161	535,006	368,016
Number of crew.....	4,657	3,684	4,160	4,133	3,342
Description of vessels—					
Steam and motor, screw.....No	47,031	43,382	23,422	26,491	32,398
Steam and motor, paddle..... "	1,357	1,474	1,640	1,506	1,989
Steam and motor, sternwheel.... "	10	7	9	233	9
Sail, schooners..... "	254	175	208	137	146
Sail, sloops..... "	30	15	11	9	
Sail, barges..... "	2,076	1,958	1,766	2,250	1,376

Section 3.—Coasting Trade.

Statistics of the arrivals and departures of the vessels engaged in the coasting trade of Canada, whether on the sea or on the Great Lakes, are given in Table 54

54.—British and Foreign Vessels employed in the Coasting Trade of Canada, fiscal years ended Mar. 31, 1924-1928.

Items.	1924.	1925.	1926.	1927.	1928
VESSELS ARRIVED—					
British—					
Steam and motor.....No.	74,489	74,485	76,454	79,009	8
Tons register.....	34,254,485	35,481,847	37,319,725	38,613,812	40,89
Number of crew.....	1,448,416	1,462,860	1,535,390	1,568,799	1,77
Sail.....No.	12,183	11,300	11,443	12,161	1
Tons register.....	3,861,098	3,567,940	3,772,114	3,723,565	3,53
Number of crew.....	46,591	45,294	46,126	56,119	5
Foreign—					
Steam and motor.....No.	1,189	1,251	656	916	
Tons register.....	1,063,299	1,360,904	610,509	736,194	92
Number of crew.....	20,989	22,937	10,825	14,642	1
Sail.....No.	174	149	140	136	
Tons register.....	89,830	69,681	68,132	51,348	32
Number of crew.....	1,150	762	719	632	
Description of vessels—					
Steam, screw.....No.	70,589	70,929	72,165	75,193	72
Steam, paddle..... "	3,747	3,640	3,775	3,381	2
Steam, sternwheel..... "	1,342	1,167	1,170	1,351	1
Motor[1]..... "	–	–	–	–	6
Sail, ships..... "	634	713	518	1	
Sail, barks..... "	4	58	2	1,118	
Sail, brigantines..... "	–	–	5	–	5
Sail, schooners..... "	6,652	5,345	6,107	6,660	
Sail, sloops, barges, canal boats, etc..... "	5,067	5,333	4,951	4,518	4
VESSELS DEPARTED—					
British—					
Steam and motor.....No.	71,713	74,588	76,131	78,127	83
Tons register.....	33,280,684	35,298,222	36,952,466	38,422,848	40,008
Number of crew.....	1,439,664	1,445,592	1,582,646	1,585,907	1,763
Sail.....No.	11,615	10,846	10,985	11,663	10
Tons register.....	3,660,252	3,399,563	3,621,407	3,653,974	3,300
Number of crew.....	44,345	43,351	44,562	50,286	50
Foreign—					
Steam and motor.....No.	1,251	1,425	584	883	
Tons register.....	1,063,184	1,376,128	471,235	497,773	813
Number of crew.....	22,216	28,190	9,434	12,812	16
Sail.....No.	183	232	178	141	
Tons register.....	92,296	65,534	72,067	42,872	22
Number of crew.....	1,051	804	753	491	
Description of vessels—					
Steam, screw.....No.	67,718	71,160	71,748	74,289	72
Steam, paddle..... "	3,901	3,678	3,800	3,384	2
Steam, sternwheel..... "	1,345	1,175	1,167	1,337	1
Motor[1]..... "	–	–	–	–	6
Sail, ships..... "	479	675	490	10	
Sail, barks..... "	4	50	1	1,232	5
Sail, brigantines..... "	–	2	2	–	
Sail, schooners..... "	6,492	5,405	5,843	6,256	
Sail, sloops, barges, canal boats, etc..... "	4,823	4,946	4,827	4,306	4

[1] Not separated from steamers prior to 1928.

Section 4.—Grand Total Shipping Trade.

A statement showing, by provinces, the total number and tonnage of all vessels entered and cleared at Canadian ports during the fiscal year ended Mar. 31, 192 is given in Table **55.** The total tonnage of vessels arrived was 86,368,065, as compared with 81,211,296 in 1927, 78,725,299 in 1926, 78,566,856 in 1925, 76,692,7 in 1924, 72,200,372 in 1923 and 59,079,561 in 1922, and the total tonnage vessels departed was 86,963,348, as compared with 81,862,749 in 1927, 79,409,1 in 1926, 79,992,014 in 1925, 75,619,788 in 1924, 71,172,889 in 1923 and 59,412,7

1922. Thus total shipping entered and cleared has increased by nearly 46 p.c. 6 years.

.—Statement showing by Provinces the total Number and Tonnage of all Vessels entered and cleared at Canadian Ports during the fiscal year ended Mar. 31, 1928.[1]

Provinces.	Sea-going.				Coastwise.			
	Arrived.		Departed.		Arrived.		Departed.	
	Vessels.	Tons register.	Vessels.	Tons register.	Vessels.	Tons register.	Vessels.	Tons register.
ova Scotia	4,765	5,232,250	5,124	5,693,008	21,352	4,228,760	21,357	3,883,513
rince Edward Island	82	52,201	105	68,697	1,567	271,073	1,542	254,259
ew Brunswick	4,865	1,529,812	4,277	1,301,422	4,305	595,243	4,529	847,156
uebec	1,851	6,706,500	1,650	5,712,743	11,248	9,439,526	11,178	9,754,467
ntario	1	1,487	1	1,487	16,428	14,517,915	15,740	13,240,391
anitoba	3	3,330	2	2,974	11	1,231	9	812
ritish Columbia	9,336	10,715,267	9,468	11,193,456	39,774	16,181,529	40,069	16,020,044
ukon	–	–	–	–	296	146,309	290	145,388
Total	**29,903**	**24,240,847**	**29,627**	**23,973,787**	**94,981**	**45,381,586**	**94,714**	**44,146,030**

Provinces.	Rivers and Lakes.				Total.			
ova Scotia	–	–	–	–	26,117	9,461,010	26,481	9,576,521
rince Edward Island	–	–	–	–	1,649	323,274	1,647	322,956
ew Brunswick	–	–	–	–	9,170	2,125,055	8,806	2,148,578
uebec	1,899	1,399,195	2,657	2,143,875	14,998	17,545,221	15,485	17,611,085
ntario	33,121	15,339,307	33,203	16,692,503	49,550	29,858,709	48,944	29,934,381
anitoba	–	–	–	–	14	4,561	11	3,786
ritish Columbia	42	1,279	43	1,296	49,152	26,898,075	49,580	27,214,796
ukon	11	5,851	15	5,857	307	152,160	305	151,245
Total	**35,073**	**16,745,632**	**35,918**	**18,843,531**	**159,957**	**86,368,065**	**151,259**	**86,963,348**

[1]Exclusive of ferriage.

The relative volume of shipping in the leading ports of the provinces of Canada shown in Table 56. Details are given of the sea-going vessels and of the total of l shipping (exclusive of ferriage) arrived and departed at each port. In the fiscal ear ended Mar. 31, 1928, the tonnage of vessels arriving and departing at Vanouver exceeded that at any other port in Canada, while Montreal and Victoria ere next in order of importance.

.—Number and Tonnage of Sea-going and of all Vessels entered and cleared at the Principal Ports of Canada, fiscal year ended Mar. 31, 1928.

NOTE.—For details of coastwise and inland international shipping for these ports and for all other ports Canada, see the Shipping Report of the Department of National Revenue for the fiscal year ended ar. 31, 1928.

Provinces and Ports.	Sea-going Vessels.				Total Shipping.			
	Arrived.		Departed.		Arrived.		Departed.	
	Vessels.	Tons register.	Vessels.	Tons register.	Vessels.	Tons register.	Vessels.	Tons register.
rince Edward Island—								
Charlottetown	35	34,624	59	53,956	933	218,711	932	218,342
ova Scotia—								
Baddeck	46	24,452	59	56,772	898	153,146	923	187,607
Canso	215	29,767	211	30,154	2,181	257,590	2,186	258,562
Digby	23	4,414	32	4,638	1,023	251,756	1,025	252,316
Halifax	1,427	3,537,068	1,584	3,611,778	3,720	4,062,216	3,929	4,124,411
Louisburg	145	43,458	138	56,686	268	134,431	274	143,061
North Sydney	868	352,869	892	395,340	1,932	688,521	1,938	692,881
Parrsboro	68	25,077	93	37,607	715	95,643	723	96,932
Pictou	10	6,261	14	12,671	618	180,747	622	181,528
Port Mulgrave	2	1,839	3	2,955	1,192	101,339	1,191	99,454
Sydney	278	536,401	354	744,178	1,542	1,958,525	1,558	1,964,052
Windsor	181	233,556	193	238,649	421	301,815	423	302,546
Yarmouth	326	245,134	296	240,179	824	277,377	847	277,520

56.—Number and Tonnage of Sea-going and of all Vessels entered and cleared the Principal Ports of Canada, fiscal year ended Mar. 31, 1928—concluded.

Provinces and Ports.	Sea-going Vessels.				Total Shipping.			
	Arrived.		Departed.		Arrived.		Departed.	
	Vessels.	Tons register.	Vessels.	Tons register.	Vessels.	Tons register.	Vessels.	Tons register.
New Brunswick—								
Saint John	968	1,335,528	833	1,071,468	2,763	1,718,076	2,853	1,7
Quebec—								
Gaspé	23	33,954	20	13,973	174	169,864	165	1
Lévis	3	8,576	–	–	70	173,915	70	1
Montreal	1,204	4,076,747	1,173	4,148,127	7,698	9,544,269	7,951	9,0
Port Alfred	34	65,533	33	56,255	165	318,906	165	2
Quebec	417	2,218,524	256	1,204,206	2,628	4,137,343	2,671	4,1
Rimouski	68	79,959	68	79,959	131	152,621	131	1
Sorel	7	22,538	6	10,862	777	986,288	775	9
Three Rivers	60	183,512	62	187,556	1,953	1,648,957	1,951	1,6
Ontario—								
Amherstburg	–	–	–	–	1,662	398,210	1,658	3
Belleville	–	–	–	–	368	117,093	366	1
Brockville	–	–	–	–	851	362,402	852	3
Byng Inlet	–	–	–	–	101	251,091	102	2
Cobourg	–	–	–	–	649	2,105,774	672	2,1
Depot Harbour	–	–	–	–	128	269,020	128	2
Erieau	–	–	–	–	320	187,192	322	1
Fort William	–	–	–	–	1,459	4,268,930	1,393	3,9
Gananoque	–	–	–	–	4,872	126,425	4,872	1
Goderich	–	–	–	–	115	244,163	114	2
Gore Bay	–	–	–	–	505	113,544	508	1
Hamilton	–	–	–	–	661	450,515	552	3
Kingston	–	–	–	–	1,886	944,541	1,836	9
Little Current	–	–	–	–	323	193,685	320	1
Midland	–	–	–	–	276	614,297	294	6
Niagara Falls	–	–	–	–	870	808,961	870	8
Niagara	–	–	–	–	1,409	1,232,700	1,407	1,2
Owen Sound	–	–	–	–	391	333,842	395	3
Point Edward	–	–	–	–	756	845,245	759	8
Port Arthur	–	–	–	–	1,390	3,638,161	1,514	4,4
Port Colborne	–	–	–	–	2,761	3,035,219	2,846	3,0
Port Dalhousie	–	–	–	–	795	345,217	787	3
Port Dover	–	–	–	–	504	100,611	506	1
Port McNicoll	–	–	–	–	280	773,260	287	7
Port Stanley	–	–	–	–	206	180,208	254	2
Prescott	–	–	–	–	828	527,748	794	4
Sarnia	–	–	–	–	1,697	617,523	1,700	5
Sault Ste. Marie	–	–	–	–	2,753	2,225,168	3,010	2,3
Thorold	–	–	–	–	98	105,291	98	1
Toronto	–	–	–	–	2,292	1,847,491	1,996	1,5
Walkerville	–	–	–	–	4,872	175,320	4,422	2
Wallaceburg	–	–	–	–	288	124,214	284	1
Welland	–	–	–	–	117	105,603	92	
Windsor	–	–	–	–	801	917,806	794	9
British Columbia—								
Alert Bay	58	37,449	57	37,300	1,346	760,201	1,347	7
Anyox	9	11,431	88	117,075	523	311,539	522	3
Britannia Beach	26	56,644	26	56,674	608	220,398	608	2
Butedale	121	4,436	120	4,842	1,130	251,415	1,135	2
Chemainus	217	108,846	271	253,534	604	180,418	643	3
Kaslo	–	–	–	–	469	315,410	468	3
Ladysmith	248	125,139	247	84,849	2,309	948,658	2,314	9
Nanaimo	754	143,441	914	338,918	3,894	1,080,973	4,022	1,2
Nelson	–	–	–	–	2,601	1,248,251	2,400	9
New Westminster	172	490,882	175	505,353	1,686	922,373	1,787	9
Ocean Falls	5	8,852	74	138,371	1,025	544,725	1,035	5
Port Alberni	35	82,944	53	158,800	410	175,861	432	2
Powell River	115	199,155	115	201,155	1,989	1,109,568	1,907	1,0
Prince Rupert	2,259	300,152	2,263	330,450	4,479	1,175,092	4,570	1,1
Quatsino	30	58,502	11	32,658	196	143,538	192	1
Stewart	69	54,402	23	15,330	251	219,960	252	2
Sidney	522	158,433	508	157,108	782	185,454	783	1
Union Bay	38	28,528	90	173,750	817	261,656	868	4
Vancouver	2,357	5,474,250	2,300	5,353,708	16,372	10,476,153	16,574	10,5
Victoria	2,197	3,365,495	2,044	3,229,879	6,635	6,305,108	6,658	6,3

Section 5.—Shipping Constructed and on the Registry.

The shipbuilding industry in Canada dates from the earliest settlement of the country, and up till the 1870's was one of the leading industries of Quebec and of the Maritime Provinces, 490 vessels with a total tonnage of 183,010 being constructed in the calendar year 1874. At this time, however, the advent of the steel ship rendered the wooden vessels, the material for which was so abundant in Canada, obsolete, with the result that the tonnage built has never again reached the above figure, though in the fiscal years 1919 and 1920 the construction of the Canadian Government Merchant Marine, built as an extraordinary measure arising out of the war, raised the total constructed to 104,444 and 164,074 tons respectively. Statistics of ships built and registered in Canada or sold to other countries are given in Table 57. For further information on the shipbuilding industry, see Table 6 on pages 420 and 421 of the present volume.

57.—Vessels built and registered in Canada and Vessels sold to other Countries, fiscal years ended June 30, 1901-1906, and Mar. 31, 1907-1928.

NOTE.—For 1874-1900, see Canada Year Book, 1911, p. 383.

Fiscal Years.	Built.		Registered.		Sold to other Countries.		
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	Value.
							$
1901	240	21,956	327	35,156	5	4,490	66,468
1902	260	28,288	316	34,236	27	11,360	235,865
1903	295	30,856	312	41,405	21	11,172	220,602
1904	214	28,397	243	33,192	11	7,208	87,115
1905	248	21,865	335	27,583	21	3,696	100,363
1906	323	18,724	420	37,639	45	9,487	187,725
1907 (9 months)	229	33,205	257	31,635	17	3,855	68,190
1908	361	49,928	357	78,144	28	4,515	132,900
1909	303	29,023	277	32,899	16	3,644	98,643
1910	264	24,059	220	33,383	14	5,047	133,800
1911	247	22,812	234	50,006	17	5,885	201,526
1912	326	31,065	302	30,021	18	4,265	140,350
1913	324	24,325	328	30,225	20	7,976	610,650
1914	286	46,887	230	46,909	27	8,258	169,618
1915	224	45,721	237	55,384	21	17,044	1,150,950
1916	167	13,497	325	102,239	21	4,529	192,575
1917	184	28,638	334	105,826	47	24,954	4,398,570
1918	216	53,912	336	70,350	63	25,252	5,330,850
1919	277	104,444	327	102,883	85	48,965	14,612,338
1920	352	164,074	459	237,022	68	53,407	17,819,477
1921	220	95,838	323	188,915	69	34,623	8,456,573
1922	143	78,409	228	131,732	35	25,462	3,399,450
1923	154	14,868	274	57,446	18	26,394	1,009,327
1924	160	20,336	194	74,311	21	17,076	605,211
1925	232	36,147	198	48,054	28	21,689	717,730
1926	247	39,840	218	88,380	27	24,673	1,413,150
1927	341	32,801	281	79,448	32	27,027	1,984,040
1928	236	12,904	417	64,301	31	16,307	599,490

The number and net tonnage of the vessels on the registry of Canada, as at the end of each of the calendar years from 1918 to 1927, are given by provinces in Table 58. In 1927 there were 8,454 vessels with a tonnage of 1,368,000.

58.—Number and net Tonnage of Vessels on the Registry of Shipping of Canada, by Provinces, Dec. 31, 1918-1927.

NOTE.—The census of registered vessels made by the Dominion Bureau of Statistics, recorded on Dec. 31, 1918, only 5,849 vessels of 893,865 tons, in comparison with the 8,568 vessels of 1,016,778 tons shown below. Further details may be found in the Census of Registered Vessels in Canada, 1918.

Provinces.	1918.		1919.		1920.		1921.		1922.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
P.E. Island	158	10,805	158	10,726	143	9,963	137	9,560	138	9,615
Nova Scotia	1,948	124,517	1,965	158,100	1,709	152,130	1,550	153,461	1,523	146,329
New Brunswick	1,043	49,483	1,018	42,050	917	38,634	859	40,456	866	39,197
Quebec	1,318	275,235	1,340	342,424	1,321	409,442	1,252	449,817	1,314	459,297
Ontario	2,064	312,865	1,986	320,065	1,793	313,875	1,681	306,944	1,693	316,534
Manitoba	96	9,791	89	9,160	83	9,119	86	9,599	91	10,340
Saskatchewan	5	529	5	529	4	393	5	447	4	815
British Columbia	1,928	231,513	2,006	207,708	1,930	217,481	1,908	252,876	2,006	259,100
Yukon Territory	8	2,040	6	1,133	4	813	4	813	6	486
Total	**8,568**	**1,016,778**	**8,573**	**1,091,895**	**7,904**	**1,151,880**	**7,482**	**1,223,973**	**7,641**	**1,241,522**

Provinces.	1923.		1924.		1925.		1926.		1927.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
P.E. Island	133	9,600	133	9,078	131	8,997	127	8,556	133	8,583
Nova Scotia	1,505	140,641	1,488	134,991	1,475	135,761	1,452	134,539	1,412	129,482
New Brunswick	873	38,798	808	34,644	818	33,318	816	33,002	829	33,077
Quebec	1,298	443,177	1,305	425,852	1,341	438,253	1,369	447,889	1,368	456,093
Ontario	1,677	317,850	1,649	314,297	1,667	326,571	1,702	387,036	1,724	397,983
Manitoba	93	10,207	93	10,207	93	10,207	94	10,321	96	10,666
Saskatchewan	6	486	6	486	6	486	6	486	6	486
British Columbia	2,101	268,489	2,198	289,549	2,373	327,524	2,618	325,190	2,872	327,985
Yukon Territory	8	1,632	9	1,916	9	1,916	9	1,916	14	3,655
Total	**7,694**	**1,230,880**	**7,689**	**1,221,020**	**7,913**	**1,283,033**	**8,193**	**1,348,935**	**8,454**	**1,368,000**

Section 6.—The Department of Marine and Fisheries.

Administration of the general shipping interests of Canada is in the hands of the Dominion Department of Marine and Fisheries. Its more important functions as a Department of Marine include the following:—(1) administration of the Canada Shipping Act and other Acts of the Dominion Government relating to marine transportation; (2) pilotage; (3) the construction and maintenance of lighthouses, light ships, fog alarms, buoys and beacons; (4) ports, harbours, piers, wharves and breakwaters; (5) the Meteorological Service of Canada; (6) sick and distressed seamen, and the establishment, regulation and management of marine and seamen's hospitals; (7) river and harbour police; (8) inquiries into the causes of shipwrecks and casualties and the collection of wreck statistics; (9) the inspection of steamboats; (10) the construction and maintenance of the St. Lawrence River ship channel; (11) the maintenance of winter communication between Prince Edward Island and the mainland, and (12) the administration of government radiotelegraph stations and the supervision of private stations in Canada. The net revenue of the Department for the fiscal year ended March 31, 1928, was $615,089, and the expenditure for the same period was $15,368,692.

A summary statement of the revenue and expenditure of the Marine Branch of the Department of Marine and Fisheries is given for each fiscal year since Confederation in Table 59, while details for the six years from 1923 to 1928 are presented in Tables 60 and 61.

59.—Total Revenue and Expenditure of the Department of Marine, fiscal years ended June 30, 1868-1906, and Mar. 31, 1907-1928.

Years.	Revenue.	Expenditure.	Years.	Revenue.	Expenditure.	Years.	Revenue.	Expenditure.
	$	$		$	$		$	$
1868	71,811	371,071	1888	99,920	883,251	1908	177,591	5,374,774
1869	75,351	360,900	1889	99,940	1,023,801	1909	169,502	5,498,531
1870	71,490	367,189	1890	115,507	807,417	1910	156,957	4,692,771
1871	70,254	389,537	1891	104,248	885,410	1911	154,492	4,197,420
1872	79,324	518,658	1892	106,582	861,427	1912	185,579	4,911,141
1873	114,756	706,818	1893	107,390	898,720	1913	185,725	5,213,223
1874	108,350	845,151	1894	165,870	905,654	1914	217,034	5,828,027
1875	91,235	844,586	1895	99,557	895,828	1915	795,550[2]	6,202,908
1876	107,984	970,146	1896	103,012	793,634	1916	461,457	5,621,611
1877	105,907	820,054	1897	111,009	867,773	1917	574,498	4,768,784
1878	100,850	786,156	1898	120,602	856,192	1918	228,812	4,361,498
1879	84,144	755,359	1899	126,528	1,102,602	1919	396,779	4,459,165
1880	91,942	723,391	1900	130,229	982,562	1920	303,002	38,301,080
1881	108,304	761,731	1901	144,819	1,029,925	1921	396,617	26,038,902
1882	109,125	774,832	1902	148,607	1,501,619	1922	701,497	20,419,883
1883	104,383	825,011	1903	139,876	1,671,495	1923	574,567	13,156,182
1884	118,080	927,242	1904	128,507	2,150,940	1924	593,722	13,160,680
1885	101,268	1,129,901	1905	121,815	4,747,723	1925	416,864	13,636,145
1886	91,885	980,121	1906	139,475	5,066,253	1926	479,475	16,776,939
1887	102,238	917,557	1907[1]	106,260	3,637,600	1927	629,761	10,270,674
						1928	615,089	15,368,692

[1]Nine months. [2]Includes $493,000 from sale of steamer "Earl Grey," sold to Russian Government,

60.—Revenue of the Department of Marine, fiscal years ended Mar. 31, 1923-1928.

Heads of Revenue.	1923.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$	$
Harbours, piers and wharves	93,355	110,552	101,130	112,114	117,077	57,803
Earnings of Dominion steamers	854	4,841	1,697	3,553	11,875	5,909
Decayed pilots' fund	10,619	9,836	–	–	–	–
Steamboat inspection fund	125,731	127,897	122,917	123,380	135,131	127,851
Examination, masters and mates	3,998	4,246	5,091	4,434	4,281	5,002
Casual revenue, sundries	78,432	56,071	34,718	53,067	80,724	98,659
Saint John pilotage dues	55,485	48,000	–	–	–	–
Saint John superannuation	6,658	6,009	–	–	–	–
Halifax pilotage dues	62,205	72,734	–	–	–	–
Halifax superannuation	3,110	3,637	–	–	–	–
Sydney pilotage fund	44,965	41,906	–	–	–	–
Sydney superannuation	6,745	6,723	–	–	–	–
Radio revenue	38,925	52,227	49,409	51,368	69,539	64,219
Fines and forfeitures	2,247	1,185	282	795	2,925	4,225
Wireless amateur license fees	16,217	35,959	100,084	129,101	206,243	249,693
Wireless operators' examination fees	–	–	–	472	427	480
Miscellaneous	2,225	3,304	1,536	1,191	1,205	1,247
Capital account	22,766	8,595	–	–	335	–
Total revenue	**574,567**	**593,722**	**416,864**	**479,475**	**629,761**	**615,089**

61.—Expenditure of the Department of Marine, fiscal years ended Mar. 31, 1923-1928.

Heads of Expenditure.	1923.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$	$
Ocean and River Service—						
Investigation into wrecks	–	–	–	5,374	5,832	5,749
Registration of shipping	–	–	–	2,444	2,163	2,573
Removal of obstructions	–	–	–	3,143	95,443	1,771
Life-saving service	60,690	84,525	79,692	83,854	62,668	62,919
Dominion steamers and icebreakers	1,367,420	1,468,633	1,390,856	1,492,079	1,497,106	1,625,501
Schools of navigation	–	–	5,817	6,596	7,752	7,288
Cattle inspection	–	–	3,201	3,877	4,000	3,709
Wrecking plants (subsidy)	35,000	35,000	35,000	35,000	35,000	45,000
Allowance to relatives of crew of the "Lambton"	30,500	–	–	–	–	–
Boat to replace "Lambton"	80,000	–	–	–	–	–
Examination, masters and mates	18,308	18,666	19,995	18,111	18,930	19,303
Hydro and Tidal survey	–	351,479	262,171	250,892	266,480	310,699
Radio telegraph	–	417,771	412,175	492,316	439,805	475,204
Radio reception	–	–	–	–	111,782	154,543
Tidal survey	–	33,538	30,026	–	–	–
Other items of expenditure	35,689	29,665	13,701	4,239	33,848	13,333
Total	**1,627,607**	**2,439,279**	**2,252,634**	**2,397,924**	**2,580,808**	**3,749,105**
Lighthouse and Coast Service—						
Agencies and contingencies	190,419	203,543	205,584	217,942	212,635	210,048
Administration of pilotage	109,004	84,986	77,953	102,902	82,624	121,744
Salaries and allowances to light-keepers	649,856	627,164	619,227	649,783	674,581	676,030
Maintenance and repairs to lighthouses, etc	790,894	749,426	762,610	814,305	830,772	893,182
Construction of lighthouses, etc	397,433	450,782	303,795	411,642	511,402	597,633
Breaking of ice	40,000	34,167	42,500	30,000	30,000	30,000
Patrol in B.C. and Northern waters	–	–	9,696	9,350	–	–
Signal service	86,068	95,184	94,748	99,990	99,765	102,938
Other items of expenditure	42,811	44,805	21,488	19,980	24,179	20,167
New steamer	–	–	–	–	–	94,968
Total	**2,306,485**	**2,293,059**	**2,137,601**	**2,355,893**	**2,465,958**	**2,746,761**
Public Works, chargeable to capital—						
Ship channel, river St. Lawrence	658,934	626,372	911,209	1,596,754	1,605,049	1,921,903
Quebec harbour improvement	–	–	493,333	–	–	–
Sorel shipyard	89,322	124,360	153,271	143,634	151,316	95,562
Sea-going dredge	89,855	–	–	–	–	–
Self-propelling barge	226,469	54,800	–	–	–	–
Total	**1,064,580**	**805,532**	**1,557,813**	**1,740,388**	**1,756,366**	**2,017,464**
Scientific Institutuions— Meteorological Service— **Total**	**251,583**	**228,876**	**232,095**	**255,129**	**243,233**	**270,276**
Steamboat inspection	110,458	111,500	113,771	118,843	121,961	131,065
Naval service	699,325	–	–	–	–	–
Departmental salaries	385,249	349,532	383,487	388,564	385,700	382,293
Contingencies	66,917	70,190	44,726	45,881	44,530	53,426
Bonus and salary revision	177,355	177,509	141,625	32,000	–	102,659
Gratuities	4,906	2,735	3,911	3,511	6,118	6,487
Classification arrears	1,200	–	–	–	–	–
Retirement Act	–	7,200	40,483			
Superannuation No. 4	8,354	–	–	20,980	–	–
Montreal Harbour Commission	1,802,000	3,285,000	3,265,000	6,245,000	1,035,000	2,180,000
Quebec Harbour Commission	284,200	449,000	734,000	479,000	903,000	2,160,000
Vancouver Harbour Commission	2,289,000	2,778,000	2,729,000	2,688,000	728,000	1,564,000
Imperial Government	430,043	3,139	–	–	–	–
Victoria, B.C., shipowners	5,157	26,952	–	–	–	–
Consolidated revenue	1,501,273	873	–	–	–	–
Miscellaneous and unforeseen	140,489	72,305	–	5,825	–	5,156
Total expenditure	**13,156,182**	**13,160,680**	**13,636,145**	**16,776,939**	**10,270,674**	**15,368,693**

Steamboat Inspection.—The Steamboat Inspection Service of Canada, maintained under the authority of the Marine and Fisheries Department, comprises the Board of Steamboat Inspection, together with staffs of inspectors at the principal ocean and inland ports. The Board decides on the standards to be required of all vessels coming under its jurisdiction, which must be attained by all ships given official warrant as to their seaworthiness and mechanical condition. Further, the Board grants certificates of competency to engineers of steamboats.

A table showing the number and tonnage of steamboats inspected during the fiscal year ended Mar. 31, 1928, follows.

62.—Steamboat Inspection during the fiscal year ended Mar. 31, 1928.

Divisions.	Vessels Inspected.				Vessels not Inspected.	
	Vessels registered or owned in the Dominion.		Vessels registered or owned elsewhere.			
	No.	Gross Tonnage	No.	Gross Tonnage.	No.	Gross Tonnage.
Halifax	161	165,935	16	32,068	9	2,413
Saint John	69	24,555	3	7,934	28	14,970
Quebec	56	39,302	–	–	10	2,693
Sorel	104	44,034	–	–	16	4,485
Montreal	210	205,789	2	12,061	57	99,988
Kingston	85	78,479	1	25	8	2,155
Toronto	186	177,271	37	36,344	15	3,715
Midland	101	143,356	6	131	23	1,471
Collingwood	105	42,893	2	4,077	14	1,398
Port Arthur	97	90,255	–	–	71	3,165
Vancouver	270	169,019	9	59,010	86	15,497
Victoria	77	54,789	19	118,480	16	24,098
Total	**1,521**	**1,235,677**	**95**	**270,130**	**353**	**176,048**

Divisions.	Vessels subject to Inspection when in commission		Vessels added to the Dominion Register.		Vessels lost, broken up or destroyed.	
	No.	Gross Tonnage.	No.	Gross Tonnage.	No.	Gross Tonnage.
Halifax	186	200,416	8	1,499	5	1,228
Saint John	100	47,459	–	–	–	–
Quebec	66	41,995	1	6,327	–	–
Sorel	120	48,519	3	1,045	6	1,374
Montreal	269	317,838	3	6,879	5	2,546
Kingston	94	80,659	2	3,534	2	74
Toronto	238	217,330	7	13,099	5	307
Midland	130	144,958	6	12,029	5	2,272
Collingwood	121	48,368	1	1,981	7	790
Port Arthur	168	93,420	6	103	5	530
Vancouver	365	243,526	7	1,671	4	570
Victoria	112	197,367	1	20	–	–
Total	**1,969**	**1,681,855**	**45**	**48,187**	**44**	**9,691**

Fees collected during the year on account of inspections totalled $123,545, and those on account of examinations of engineers amounted to $1,827, giving a combined total revenue collected by inspectors of $125,372.

Seamen Shipped and Discharged.—Table 63 shows, for each year from 1908 to 1927, the number of seamen shipped and discharged at Canadian ports under the provisions of the Canada Shipping Act (R.S.C. 1927, c. 186).

63.—Number of Seamen Shipped and Discharged at Canadian Ports, calendar years 1908-1927.

Years.	Seamen Shipped.	Seamen Discharged.	Years.	Seamen Shipped.	Seamen Discharged.
1908	18,013	11,542	1918	16,516	12,930
1909	20,502	11,573	1919	18,208	13,649
1910	16,735	11,069	1920	22,569	19,719
1911	13,748	11,301	1921	18,444	17,103
1912	13,708	11,290	1922	25,689	24,558
1913	16,975	13,749	1923	31,407	30,195
1914	18,987	14,989	1924	30,687	29,018
1915	22,797	14,319	1925	31,772	28,472
1916	20,902	16,689	1926	31,869	27,413
1917	16,998	14,145	1927	28,137	25,863

Wrecks and Casualties.—The statement in Table **64,** supplied by the Department of Marine, applies to vessels of every nationality in respect of wrecks and casualties in Canadian waters, and to Canadian vessels in respect of wrecks and casualties in other waters. The returns in some years cover wrecks and casualties of previous years. Statistics of marine danger signals appear in Table **65.**

64.—Canadian Wrecks and Casualties for 1870-1900, for the years ended June 30, 1901-1917, and for the calendar years 1918-1927.

NOTE.—For details of the years 1870-1900, see Canada Year Book, 1911, p. 381.

Years.	Casualties.	Net tonnage.	Lives lost.	Stated damages.	Years.	Casualties.	Net tonnage.	Lives lost.	Stated damages.
	No.	Tons.	No.	$		No.	Tons.	No.	$
1870-1900	9,670	3,577,367	5,096	61,525,760	1915	280	214,036	70	1,459,012
1901	136	47,181	126	285,782	1916	308	242,996	67	1,377,442
1902	222	105,814	132	835,916	1917	239	715,384	152	4,850,145[2]
1903	237	162,297	32	409,991	1918	226	312,928	402[3]	1,818,895
1904	192	81,143	9	489,699	1919	240	205,720	100	1,808,690
1905	178	79,588	15	621,267	1920	227	222,928	28	1,643,825
1906	220	139,586	149	573,420	1921	260	588,503	38	1,809,328
1907	317	131,441	55	672,466	1922	277	604,423	27	451,312
1908	307	120,269	34	1,390,891	1923	376	480,713	50	3,184,749
1909	343	189,906	24	1,131,966	1924	224	215,470	54	4,355,217
1910	321	211,565	101	1,569,580	1925	298	305,798	53	3,317,020
1911	271	122,619	48	942,093	1926	300	293,310	91	4,630,267
1912	293	269,569	59	1,053,768	1927	434	566,011	128	6,879,825
1913	275	270,905	160	1,963,870					
1914	255	210,368	1,083[1]	4,983,775	**Total**	**16,926**	**10,687,838**	**8,383**	**116,035,971**

[1]Includes 1,042 lives lost in the "Empress of Ireland" disaster. [2]Excluding damage to cargo estimated at $4,310,350. [3]Includes 328 lives lost in the "Princess Sophia" disaster.

65.—Comparative Statement of Marine Danger Signals, fiscal years ended Mar. 31, 1917-1928.

NOTE.—Besides the following, there were in 1928 49 lighted spar-buoys, floats and dolphins, 5,441 unlighted buoys, 460 unlighted tripods, floats, dolphins, spindles and beacons, and 2,569 stakes, bushes and balises.

Description.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Lights	1,560	1,575	1,577	1,578	1,598	1,602	1,596	1,627	1,654	1,675	1,725	1,771
Lightships	12	9	9	10	9	9	9	10	10	10	11	11
Lightboats	1	1	1	1	–	–	–	–	–	–	–	–
Lightkeepers	1,126	1,128	1,122	1,120	1,130	1,118	1,105	1,119	1,134	1,143	1,156	1,179
Fog whistles	11	11	10	9	8	8	8	9	8	8	8	6
Sirens	2	2	2	1	1	1	1	1	1	1	2	2
Diaphones	113	124	128	131	134	135	138	140	146	146	147	153
Fog bells	32	30	29	32	33	35	36	35	35	36	35	36
Hand fog horns	156	154	156	149	148	148	148	147	149	148	148	151
Hand fog bells	3	5	5	4	4	4	4	4	4	4	5	4
Gas and whistling buoys	330	334	339	336	343	345	349	359	374	374	380	401
Whistling buoys	32	32	31	31	30	29	30	30	32	34	36	38
Bell buoys	87	87	86	89	90	90	92	95	98	99	101	104
Submarine bells	22	18	15	12	11	7	7	7	7	6	6	6
Fog guns and bombs	8	8	6	7	7	7	7	7	6	6	6	6
Fog horns	5	3	3	1	1	1	–	–	–	–	–	–
Fog alarm stations	13	13	12	13	13	13	12	12	13	13	13	13

Section 7.—The Canadian Government Merchant Marine.

During the closing years of the war, the Dominion Government, realizing the need for a mercantile fleet, not only as a means of developing Canada's export trade but also as a means of assisting the National railways and of providing employment, placed orders with Canadian shipbuilding firms for the construction of 63 steel cargo vessels of six different types. These vessels were intended primarily to co-operate with British shipping in supplying the necessities of war, as well as to provide in times of peace the means of carrying abroad the products of Canada's farms, forests, mines and factories, without which Canada could not hope to take full advantage of the opportunity of expanding her export trade. Prior to Dec. 31, 1919, 19 vessels had been delivered by the builders. Additions were made to the fleet in following years until the total fleet, as at Dec. 31, 1924, numbered 57 vessels of a total deadweight tonnage of 353,450. Through sale or loss of vessels the fleet was reduced to 46 vessels with a deadweight tonnage of 312,090 at Dec. 31, 1926 and 1927. With regard to ownership and operation, a separate company was organized for each vessel, and the capital stock of each is owned by the Canadian Government Merchant Marine, Limited. Under an operating agreement with each of these companies, the Canadian Government Merchant Marine, Limited, operates all the steamers and keeps a separate account for each company. Promissory notes have been given to the Minister of Finance and Receiver-General for the total capital stock of each vessel, with interest payable at 5½ p.c. per annum.

Early operations proved profitable, and a surplus of $1,004,233 (without provision for interest charges) was shown for the year ended Dec. 31, 1920. Subsequent years, however, have shown the effects of the depression in the shipping industry, and annual deficits of $8,047,635, $9,649,479, $9,368,670, $8,836,609, $7,667,513, $6,687,221 and $7,086,940 are shown for 1921, 1922, 1923, 1924, 1925, 1926 and 1927 respectively.

These deficits, however, are now mainly due to high capital charges, as operating expenses and operating revenue have been brought nearly to a balance. In the calendar year 1927, the operating loss was $720,735, as compared with $90,160 in 1926, $948,053 in 1925 and $1,440,880 in 1924. Total revenue in 1927 was $10,233,964, and total operating expenses $10,954,700. The less favourable showing in 1927 was largely attributable to a reduced volume, during the latter part of the year, of traffic moving from Canada to the United Kingdom and European Continent, and to the fact that the Canadian steamers in the competition for traffic are at a distinct disadvantage in point of size, speed and equipment as compared with the modern tonnage now operated or under construction for service by other lines.

During 1927 a total of 240 voyages was made, the majority being to the United Kingdom and the European Continent, the West Indies, Newfoundland, Australia and California. Officers of the company outside of Canada are located in London, in the West Indies, in Australia, in New Zealand and in Newfoundland, while agencies give the company representation in all the principal shipping centres of the world.

PART X.—TELEGRAPHS.

The Toronto, Hamilton and Niagara Electro-Magnetic Telegraph Co., organized by a group of Toronto men, was the first to establish an electric telegraph service in the pre-Confederation province of Canada. It was formally organized on Oct. 22, 1846, and its Toronto-Hamilton line was opened on Dec. 19 of the same year. In January, 1847, the line was completed to Queenston, whence there was a

connecting line to Buffalo. The Montreal Telegraph Co. commenced the construction of a line to Toronto in February, 1847, and began actual operation between the two cities on Aug. 3 of the same year. By the end of the year it had 540 miles of wire in use, 9 offices and 35 employees, and had sent out 33,000 messages. Both the Montreal and the Toronto companies were incorporated by special Acts at the 1847 session of the Legislature. In 1852 the Toronto, Hamilton and Niagara Co. sold out to the Montreal company.

The British North American Electrical Association was also formed in 1847, with the object of connecting Quebec with the Maritime Provinces, but for some years its line went no farther than Rivière du Loup, though it was finally extended to Woodstock, N.B., where it connected with the American Telegraph Co., which already had lines in New Brunswick. The New Brunswick Telegraph Co. built a line connecting Saint John with the Maine lines in 1848, and in the following year extended it to Amherst, N.S., where it connected with the Nova Scotia line, bringing Halifax for the first time into telegraphic communication with New York.

The movement for consolidation of services, so evident in the Canadian railways, was also active among the telegraph companies. Thus the Montreal company bought out the Toronto, Hamilton and Niagara Telegraph Co., the Montreal and Bytown Telegraph Co., the Grand Trunk Telegraph Co., and maintained a strenuous competition with the Dominion Telegraph Co., organized in 1868. In 1881, however, the conflicting interests were consolidated under lease by the Great North Western Telegraph Co., this move effecting great economies in operation. A few years later, however, the Canadian Pacific Railway Co. established competing lines, and by September, 1886, had opened 366 offices in Ontario, Quebec and Western Canada.

The Dominion Government Telegraph Service was commenced with the object of furnishing rapid communication in outlying districts where the amount of business was so small that commercial companies would not enter the field, but where the public interests required that there should be communication. Its services are especially useful in connection with the signal and other stations established by the Department of Marine along the north shore of the Gulf of St. Lawrence, and in the Maritime Provinces and British Columbia. On March 31, 1928, the Government Telegraph Service comprised 10,764¾ miles of pole line, 13,917⅜ miles of wire, 381⅜ knots of cable and 1,040 offices. During the fiscal year 1927-28, 158 miles of new line were constructed in British Columbia, the Yukon, Saskatchewan and Nova Scotia.

Telegraph Systems.—The Canadian telegraph systems are composed of lines owned by the Dominion Government and by chartered railway and telegraph companies. The lines previously owned by the Great North Western Telegraph Co., the Grand Trunk Pacific Telegraph Co , the Canadian Northern Railway Co. and the National Transcontinental Railway are now owned by the Government and are operated by the Canadian National Telegraph Co. (formerly Great North Western Telegraph Co.). The Dominion Government Telegraph Service operates the line to the Yukon and other lines in outlying districts.

The Canadian system, in proportion to population, is one of the most extensive in the world, and is operated under considerable climatic and geographic disadvantages. In the operation of railways and in the receipt and despatch of market and press reports its services to the nation are invaluable.

Telegraph Statistics.—A brief summary table giving the more important figures of the operation of Canadian telegraphs from 1920 to 1927 follows.

66.—Summary Statistics of all Canadian Telegraphs for calendar years 1920-1927.

Yrs.	Gross revenue.	Operating expenses.	Net operating revenue.	Pole line mileage.	Wire mileage	Em-ployees.	Offices.	Messages, land.	Cable-grams.[5]	Money trans-ferred.
	$	$	$	miles	miles	No.	No.	No.	No.	$
1920..	11,337,·28	9,589,982	1,747,446	52,393	238,866	7,508	4,825	15,5·9,711	1,162,204	7,045,661
1921..	11,310,989	9,734,299	1,576,690	52,828	250,802	7,818	4,901	15,013,993	1,154,787	5,150,916
1922..	11,018,762	9,846,425	1,172,337	53,096	262,343	8,500	4,762	15,271,410	4,736,204	4,404,407
1923..	11,417,284	9,931,845	1,485,439	53,383	270,782	8,275	4,951	16,150,106	5,055,115	5,326,352
1924..	10,930,020	9,603,620	1,326,400	54,742	268,632	8,909	4,945	15,460,811	5,790,582	6,428,080
1925..	11,520,322	9,681,200	1,839,122	51,726[1]	284,121	7,224[2]	4,664	14,460,988	6,104,025	6,680,595
1926..	12,143,388	10,166,010	1,977,348	52,612[1]	305,933	6,755[2]	4,801	14,934,683	6,421,673	7,790,127
1927..	12,990,549	10,600,412	2,390,137	52,731[1]	323,539	7,238[2]	4,885	15,564,067	6,664,771	9,241,864

[1]Excluding U.S. lines of Canadian National Telegraphs. [2]Excluding railway employees.
[3]Including transatlantic cablegrams relayed between Canso, N.S., and the United States.

Table **67** gives figures of telegraph operation and line and wire mileage of various companies for the years 1923 to 1927. Statistics of the Halifax and Bermudas Cable Co., the Marconi Wireless Telegraph Co. and the Pacific Cable Board are not included.

67.—Statistics of Chartered Telegraph Companies for the calendar years 1923-1927.

Companies.	Yrs.	Miles of line.	Miles of wire.	Number of messages.[1]	Number of offices.[3]
Canadian National Telegraph Co. (formerly Great North Western Telegraph Co.)	1923	20,389	92,545	9,290,916	1,709
	1924	20,745	95,574	8,060,032	1,765
	1925	19,972	110,806	6,884,600	1,766
	1926	20,198	113,603	7,368,395	1,782
	1927	20,216	120,571	7,681,103	1,797
Canadian Pacific Railway Co.	1923	14,675	128,008	5,138,850[2]	1,457
	1924	15,353	123,849	4,975,171[2]	1,527
	1925	15,410	124,619	5,671,853[2]	1,407
	1926	15,686	141,924	5,863,568[2]	1,510
	1927	15,775	151,329	6,072,459[2]	1,566
Western Union	1923	3,638	18,593	693,108	220
	1924	3,562	18,738	729,730	225
	1925	2,779	18,431	747,144	207
	1926	2,751	18,493	779,188	207
	1927	2,721	18,179	832,312	202
Timiskaming and Northern Ontario Commission	1923	332	1,683	166,874	31
	1924	413	1,817	173,118	34
	1925	424	1,935	115,920	35
	1926	422	2,009	130,770	36
	1927	449	3,270	135,613	37
Grand Trunk Pacific Telegraph Co.[4]	1923	2,817	14,185	190,426	136
	1924	2,459	13,963	316,339	136
	1925	2,460	13,963	180,285	136
	1926	2,833	15,439	169,906	1·0
	1927	2,833	15,572	194,447	144
The North American Telegraph Co., Ltd.	1923	–	515	75,140	21
	1924	–	515	71,429	21
	1925	–	454	71,335	21
	1926	–	445	76,826	19
	1927	–	445	78,531	19
Dominion Government Telegraph Service	1923	11,532	15,253	519,561	1,342
	1924	11,210	14,176	526,681	1,192
	1925	10,681	13,913	499,358	1,052
	1926	10,722	14,020	522,796	1,066
	1927	10,737	14,173	536,842	1,082

[1]Cablegrams not included. The total in Table **66** includes messages handled by the Marconi Wireless Telegraph Co. [2]Not including press messages. [3]The total in Table **66** includes offices of wireless and cable companies. [4]Operated by Canadian National Telegraph Co.

Submarine Cables.—Six transoceanic cables have a terminus in Canada—five of them on the Atlantic and one on the Pacific coast. The date on which the cable was first shown to be of commercial value was in 1866, and up to the present their use has greatly increased. The Atlantic cables are controlled by English and American interests. The Pacific cable, from Canada to Australia and New Zealand, has been in operation since 1902, and is owned by a partnership of the Governments of Great Britain, New Zealand, Australia and Canada.

Radiotelegraph Stations.—Table 68 shows the name, situation and range in nautical miles of the Government-owned radiotelegraph stations in Canada and Newfoundland.

In former editions of the Year Book, licensed private commercial stations were also listed, but their increasing number renders this impossible. A list of those in operation in 1926 appears on pp. 657-658 of the 1926 Year Book, while an official list of the radio stations of Canada is published by the Marine Branch of the Department of Marine and Fisheries at 25 cents per copy. A transatlantic commercial wireless service is carried on by the Drummondville, Que., station, which communicates with Bridgewater, Somersetshire, England.

Table 69 gives the number of messages and words handled and the cost of maintenance for the Government stations of the east and west coasts and of the Great Lakes and Hudson Bay and Hudson Strait. For the year 1927-28, the total number of messages was 404,144, as compared with 402,023 in 1926-27 and 353,966 in 1925-26, and of words handled 7,695,757, as compared with 7,347,794 in 1926-27 and 6,335,664 in 1925-26.

68.—Government-owned Radio Stations in Canada, fiscal year ended Mar. 31, 1928[1]

Name of Station.	Situation.	Range in Nautical Miles.
EAST COAST.		
Belle Isle, Nfld.[2]	Belle Isle Straits	250
Cape Race, Nfld.*	Newfoundland	500
Chebucto Head, N.S.[2]	Entrance Halifax Harbour	150
Clarke City*	Gulf of St. Lawrence	250
Fame Point, Que.*	"	250
Father Point, Que.*	"	250
Grindstone Island, Que.	Magdalen Islds.	200
Halifax Dockyard[3]	Halifax, N.S.	–
Montreal, Que.*	St. Lawrence River	200
North Sydney*	Cape Breton, N.S.	200
Point Amour, Nfld.	Gulf of St. Lawrence	250
Quebec, Que.	St. Lawrence River	150
Sable Island*	North Atlantic	300
Saint John, N.B.[2]	Red Head, N.B.	250
Yarmouth, N.S.[2]	Nova Scotia	150
Direction Finding Stations.		
EAST COAST.		
Belle Isle D/F	Belle Isle Straits	250
Canso D/F	Nova Scotia	150
Cape Race D/F	Newfoundland	250
Chebucto Head D/F	Entrance Halifax Harbour	150
Saint John D/F	Red Head, N.B.	250
Saint Paul D/F	Nova Scotia	250
Yarmouth D/F	Nova Scotia	150

[1]Of the government-owned stations some only are operated by the Government. The rest are operated by the Marconi Co. and are indicated by an *.

[2]This is the same station as that listed under Direction Finding Stations below, but is included under two headings to indicate its two functions. It is counted only as a D/F station in the summary table 7.

[3]Temporarily closed.

68.—Government-owned Radio Stations in Canada, fiscal year ended Mar. 31, 1928[1]— concluded.

Name of Station.	Situation.	Range in Nautical Miles.
Radio Beacon Stations.		
EAST COAST.		
Cape Bauld	N.W. Newfoundland	50
Cape Ray	S.W. Newfoundland	50
Heath Point Lightship	Heath Point, Anticosti	150
Lurcher Lightship	Off Yarmouth, N.S.	150
Sambro Lightship	Off Halifax, N.S.	150
Seal Island	S.E. of Nova Scotia	100
GREAT LAKES.		
Kingston, Ont.*	Barriefield Common	350
Midland, Ont.*	Georgian Bay	
Point Edward, Ont.*	Lake Huron	350
Port Arthur, Ont.*	Port Arthur	350
Port Burwell, Ont.*	Lake Erie	350
Sault Ste. Marie, Ont.	Sault Ste. Marie, Ont.	350
Tobermory, Ont.*	Entrance Georgian Bay, Ont.	350
Toronto, Ont.*	Toronto Island	350
Radio Beacon Stations.		
Southeast Shoal	Lake Erie	50
HUDSON BAY AND HUDSON STRAIT.		
Cape Hopes Advance, Que.[2]	Hudson Strait	350
Mile 356	Hudson Bay Railway	200
Nottingham Island[2]	Hudson Strait	350
Port Burwell, Que.	Hudson Strait	350
Port Churchill, Man.[2]	Hudson Bay	350
Direction Finding Stations.		
Cape Hopes Advance	Hudson Strait	350
Nottingham Island	Hudson Strait	350
Port Churchill, Man.	Hudson Strait	350
WEST COAST.		
Alert Bay	Cormorant Island, B.C.	350
Bull Harbour	Hope Island, Vancouver Is.	250
Cape Lazo	Strait of Georgia near Comox, B.C.	250
Dead Tree Point	South of Graham Island, Queen Charlotte Islands	200
Digby Island, B.C.	Entrance Prince Rupert Harbour	250
Estevan, B.C.	West coast Vancouver Is.	500
Gonzales Hill, B.C.	Victoria Island, B.C.	250
Merry Island, B.C.	British Columbia	50
Pachena Point[2]	West coast Vancouver Is.	200
Point Grey, B.C.	Entrance Vancouver Harbour	150
Vancouver	Merchants Exchange, Vancouver	150
Direction Finding Stations.		
Pachena Point D/F	West coast—Vancouver Island	200
Radio Beacon Stations.		
Race Rocks	Near Victoria, B.C.	100
Life Saving Stations.		
Banfield, B.C.	West coast—Vancouver Is.	50
Carmanah, B.C.	" "	50
Cape Beale, B.C.	" "	50
Pachena, B.C.	" "	50

[1]See note 1 on p. 706.

[2]This is the same station as that listed under Direction Finding Stations below, but is included under two headings to indicate its two functions. It is counted only as a D/F station in the summary Table 70.

[3]Temporarily closed.

69.—Business and Cost of Maintenance of Radiotelegraph Stations for the fiscal years ended Mar. 31, 1927 and 1928.

Stations.	1927.			1928.		
	Messages handled.	Words handled.	Cost of maintenance.	Messages handled.	Words handled.	Cost of maintenance.
	No.	No.	$	No.	No.	$
East Coast	150,617	2,624,950	178,805	156,110	2,775,743	170,494
Great Lakes	39,567	576,497	61,608	32,846	478,582	61,30[illegible]
West Coast	211,839	4,146,347	113,290	205,766	4,064,762	119,528
Hudson Straits	–	–	–	9,422	376,670	–
Total	**402,023**	**7,347,794**	**353,703**	**404,144**	**7,695,757**	**351,33[illegible]**

Radiotelephony.—Radiotelephony—the wireless transmission of the human voice—is a later development of radiotelegraphy. During the Great War, radiotelephony was perfected for the use of warships and airplanes. In 1920 and 192[illegible] its peace-time possibilities were for the first time widely appreciated, and musical programs were broadcasted by electrical companies as part of their campaign to sell private radio equipment. Radiotelephony has become a very practicable means of relaying telephone messages to places where the population is too sparse to support a telephone system and to ships at sea. Thus it is a great boon to distant and isolated posts or settlements and to survey parties in the field, who by this means can keep in touch with the centres of population. But radiotelephony is not applicable to the regular business of telephone companies in urban districts, because only a limited number of messages can be transmitted simultaneously without interference. However, as an indication of the increasing popularity of radio receiving sets for "listening in" on broadcasted musical programs and news, the number of such sets licensed in Canada (private receiving stations in Table **70**) has grown from 9,956 in the fiscal year ended March 31, 1923, to 268,420 in 1928. In the latest year the total was divided among the provinces as follows:—Ontario, 125,196; Quebec, 51,377; Saskatchewan, 26,659; Manitoba, 19,324; British Columbia, 18,619; Alberta, 14,948; Nova Scotia, 7,122; New Brunswick, 4,479; Prince Edward Island, 588; Northwest Territories, 94; and the Yukon, 14. In the calendar year 1927, the production in Canada of radio apparatus, including sets, parts and batteries, reached a total value of $8,789,171. The value of complete sets manufactured was $3,748,622.

70.—Wireless and Radio Stations in Operation in Canada, Mar. 31, 1924-1928.

Class of Stations.	1924.	1925.	1926.	1927.	1928.
Coast Stations (Government-owned)	31	34	30	39	3
Direction Finding Stations (Government-owned)	7	7	8	8	
Ship Stations (Government-owned)	30	20	28	24	3
Radio Beacon Stations (Government-owned)	4	5	6	7	
Radiophone Stations (Government-owned)	5	5	4	5	
Land Stations	1	1	1	14	2
Ships Stations (commercial)	232	239	252	272	27
Limited Coast Stations	2	2	3	3	
Public Commerical Stations	7	14	9	8	
Private Commercial Stations	55	57	59	72	7
Private Commercial Broadcasting Stations	46	63	55	74	8
Experimental Stations	46	44	37	59	4
Amateur Experimental Stations	1,345	533	482	402	55
Amateur Broadcasting Stations	22	17	16	23	1
Private Receiving Stations	31,609	91,996	134,486	215,650	268,42
Radio Training Schools	14	11	9	9	
Licensed aircraft	–	2	–	–	
Total	**33,456**	**93,048**	**135,485**	**216,669**	**269,55**

PART XI.—TELEPHONES.

The telephone is in part a Canadian invention, though its inventor, Alexander Graham Bell, a Scotchman by birth, was at the time of its invention a resident of the United States, having immigrated with his father to Brantford, Ontario, in 1870, and subsequently proceeded to Boston. According to his account, the discovery of the telephone, both as to its main principle and as to the first transmission of the human voice, was made at his father's residence at Tutela Heights, Brantford, in 1876, and the first telephone talk over any distance was conducted between Brantford and Paris, a distance of 8 miles, on Aug. 10, 1876.

Telephone development in Canada dates from the year 1880, when the Bell Telephone Co. was incorporated by Act of Parliament. Although at this time all patents and lines were owned by the Canadian Telephone Co., they were dependent on the Bell Co., to which they sold out in 1882. By 1883 the first submarine telephone cable had been laid between Windsor and Detroit, and during the year the Bell Co. operated in Canada 4,400 rental-earning telephones, 44 exchanges and 40 agencies, with 600 miles of long distance wire. It controlled development in all the provinces except British Columbia, where the greater part of the system has always been in the hands of the British Columbia Telephone Co., Ltd.

With the rapid growth of private companies in the Maritime Provinces, the lines of the Bell Co. were disposed of in 1888 to the Maritime Telegraph and Telephone Co. in Nova Scotia and to the New Brunswick Telephone Co. in New Brunswick, an interest in these corporations being retained under the terms of sale. A development of a different kind is seen in the three Prairie Provinces, where well-organized systems were sold to the governments of Manitoba and Alberta in 1908 and to Saskatchewan in 1909. The lines in Ontario and Quebec are still largely owned by the Bell Telephone Co.

Telephone Systems.—The 2,462 telephone systems existing in 1927 (Table **72**) include the three large provincial systems in Manitoba, Saskatchewan and Alberta, and a smaller governmental system in Ontario, together with the system operated by the Parks Branch of the Dominion Department of the Interior. There were also 138 municipal systems, the largest operated by the cities of Edmonton, Fort William and Port Arthur. Out of the 1,552 co-operative telephone companies, no fewer than 1,180 are in Saskatchewan alone, and 209 in Nova Scotia. Besides the above, there were 496 stock companies, 102 partnership and 169 private systems.

The steady growth of the use of telephones from 1911 on is indicated in the summary statistics of Table **71**, showing an increase from 302,759 in 1911 to 1,259,987 in 1927, or from 4·2 to 13·2 telephones per 100 of the population. By provinces, the number of telephones in 1927 was as follows:—Ontario 558,468, Quebec 255,970, British Columbia, 113,050, Saskatchewan 107,782, Manitoba 74,032, Alberta 73,407, Nova Scotia 41,219, New Brunswick 31,254, Prince Edward Island, 4,669, Yukon Territory 136. The number of instruments per 100 estimated population was as follows: —British Columbia 19·7, Ontario 17·5, Saskatchewan 12·9, Alberta 11·9, Manitoba 11·4, Quebec 9·8, Nova Scotia 7·6, New Brunswick 7·6, and Prince Edward Island 5·4, In the proportion of telephones to population Canada as a whole, with 13·2 telephones per 100 population, ranks second to the United States, which has 15·3 telephones per 100 population.

Statistics of the number of telephone companies reporting to the Dominion Bureau of Statistics are given in Table **72** and **73**. Special attention may be given to the growth of co-operative companies.

71.—Progress of Telephones in Canada, years ended June 30, 1911-1918, and Dec. 31, 1919-1927.

Yrs.	Capitalization.	Cost of property.	Revenue.	Operating Expenses.	Salaries and Wages.	Companies	Wire mileage.	Telephones.	Employees[1]	Telephones per 100 population.
	$	$	$	$	$	No.	Miles.	No.	No.	No.
1911	40,043,982	34,737,530	10,068,220	6,979,045	915,636	537	687,728	302,759	10,425	4·2
1912	46,276,852	56,887,799	12,273,627	9,094,689	2,659,642	683	889,572	370,884	12,783	5·0
1913	59,847,005	69,214,971	14,879,278	11,175,689	6,839,399	1,075	1,092,586	463,671	12,867	6·2
1914	70,291,884	80,258,356	17,297,269	12,882,402	8,250,253	1,136	1,343,090	521,144	16,799	6·8
1915	74,284,991	83,792,583	17,601,673	12,836,715	8,357,029	1,396	1,452,360	533,090	15,072	6·8
1916	76,920,314	88,520,020	18,594,268	11,147,201	7,852,719	1,592	1,600,564	548,421	15,247	6·8
1917	79,121,702	94,469,534	20,122,282	12,095,426	8,882,593	1,695	1,708,202	604,136	16,490	7·4
1918	85,274,691	104,368,628	22,753,280	13,644,518	10,410,807	2,007	1,848,467	662,330	17,336	8·0
1919	100,587,833	125,017,222	29,401,006	20,081,436	15,774,586	2,219	2,105,240	778,758	20,491	9·2
1920	116,689,705	144,560,969	33,473,712	28,044,401	17,294,405	2,327	2,105,101	856,266	21,187	9·9
1921	132,537,771	158,678,229	36,986,913	30,080,035	19,000,422	2,365	2,268,271	902,090	19,943	10·4
1922	143,802,023	167,332,932	39,559,149	29,966,181	17,305,759	2,387	2,396,805	944,029	19,321	10·6
1923	152,673,022	179,002,152	42,132,959	32,390,370	18,182,429	2,459	2,574,083	1,009,203	21,002	11·1
1924	160,015,020	193,884,378	44,322,598	33,615,686	18,293,234	2,466	2,765,722	1,072,454	21,685	11·6
1925	168,167,291	210,535,795	47,233,617	35,566,947	19,106,383	2,495	3,019,773	1,142,876	21,831	12·3
1926	179,151,098	227,155,900	50,522,859	38,141,360	25,219,493	2,479	3,306,214	1,201,008	23,083	12·8
1927	192,442,495	243,999,135	56,907,338	48,561,916	26,254,605	2,462	3,591,035	1,259,987	23,437	13·2

72.—Number of Telephone Companies in Canada, by Provinces, Dec. 31, 1927.

Provinces.	Government.	Municipal.	Stock.	Co-operative.	Partnership.	Private.	Total.
Prince Edward Island	–	3	13	25	1	4	46
Nova Scotia	–	–	15	209	16	16	256
New Brunswick	–	–	20	4	3	9	36
Quebec	–	–	107	37	22	47	213
Ontario	1	123	302	54	48	70	598
Manitoba	1	8	2	7	5	9	32
Saskatchewan	1	2	19	1,180	2	3	1,207
Alberta	2	1	7	35	5	10	60
British Columbia	–	1	10	1	–	1	13
Yukon Territory	–	–	1	–	–	–	1
Totals	**5**	**138**	**496**	**1,552**	**102**	**169**	**2,462**

73.—Number of Telephone Companies in Canada, 1911-1927.[2]

Years.	Government.	Municipal.	Stock.	Co-operative.	Partnership.	Private.	Total.
1911	3	25	308	101	18	82	537
1912	3	35	368	133	31	113	683
1913	4	52	543	262	63	151	1,075
1914	4	58	611	297	48	118	1,136
1915	4	62	584	601	28	117	1,396
1916	4	67	622	765	23	111	1,592
1917	5	73	645	841	17	114	1,695
1918	5	74	735	1,085	12	96	2,007
1919	5	89	666	1,346	18	95	2,219
1920	5	88	647	1,495	9	83	2,327
1921	5	103	614	1,544	7	92	2,365
1922	5	117	693	1,474	–	98	2,387
1923	5	127	450	1,752	1	124	2,459
1924	5	153	502	1,606	63	137	2,466
1925	6	144	502	1,551	106	186	2,495
1926	6	142	490	1,560	107	174	2,479
1927	5	138	496	1,552	102	169	2,462

[1]Exclusive of employees on rural lines.
[2]The years 1911-1918 are from July 1 to June 30. Figures for 1919 to 1927 are for the calendar years.

In the two following tables, figures are shown giving the number of telephones in use, the mileage of wire and the number of employees of telephone companies, by provinces, for the year 1927, and for the Dominion, from 1911 to 1927.

74.—Telephones in use, Mileage of Wire and Number of Employees, by Provinces, Dec. 31, 1927.[1]

Provinces.	Telephones in use.						Mileage of wire.	Employees.
	Business.	Residential.	Rural.	Public pay.	Total.	Per 100 population.		
	No.	No.	No.	No.	No.	No.	Miles.	No.
Prince Ed. Island.	1,013	1,661	1,948	47	4,669	5·4	5,623	73
Nova Scotia.....	9,385	19,453	11,452	929	41,219	7·6	76,935	869
New Brunswick...	7,645	15,328	7,768	513	31,254	7·6	47,993	719
Quebec.....	79,120	144,478	25,868	6,504	255,970	9·8	769,343	6,448
Ontario.....	134,005	297,070	116,645	10,748	558,468	17·5	1,521,753	10,027
Manitoba.....	20,515	35,774	15,972	1,771	74,032	11·4	274,991	1,024
Saskatchewan.....	17,603	20,206	69,800	173	107,782	12·9	351,179	844[1]
Alberta.....	19,958	30,647	22,075	727	73,407	11·9	257,815	1,263
British Columbia..	35,131	72,848	4,001	1,070	113,050	19·7	284,837	2,167
Yukon.....	50	71	15	–	136	3·9	566	3
Total.....	**324,425**	**637,536**	**275,544**	**22,482**	**1,259,987**	**13·2**	**3,591,035**	**23,437**

[1]Excluding employees on rural lines.

75.—Telephones in use, Mileage of Wire and Number of Employees, 1911-1927.[2]

Years.	Telephones in use.						Mileage of wire.	Employees.
	Business.	Residential.	Rural.	Public. pay.	Total.	Per 100 population.		
	No.	No.	No.	No.	No.	No.	Miles.	No.
1911.....	–	–	–	–	302,759	4·2	687,782	10,425
1912.....	–	–	–	–	370,884	5·0	889,572	12,783
1913.....	–	–	–	–	463,671	6·2	1,092,587	12,867
1914.....	–	–	–	–	521,144	6·8	1,343,090	16,799
1915.....	–	–	–	–	533,090	6·8	1,452,360	15,072
1916.....	–	–	–	–	548,421	6·8	1,600,564	15,247
1917.....	–	–	–	–	604,136	7·4	1,708,203	16,490
1918.....	–	–	–	–	662,330	8·0	1,848,466	17,336
1919.....	–	–	–	–	778,758	9·2	2,105,240	20,491
1920.....	260,481	390,930	204,855	–	856,266	9·9	2,105,101	21,187
1921.....	273,498	396,384	232,208	–	902,090	10·3	2,268,271	19,943
1922.....	281,535	414,887	247,607	–	944,029	10·6	2,396,805	19,321
1923.....	303,660	444,300	261,360	–	1,009,320	11·1	2,574,083	21,002
1924.....	281,108	509,928	265,509	15,909	1,072,454	11·6	2,765,722	21,685
1925.....	297,875	556,837	268,807	19,357	1,142,876	12·2	3,020,773	21,831
1926.....	311,557	597,429	270,686	21,336	1,201,008	12·8	3,306,214	22,567
1927.....	324,425	637,536	275,544	22,482	1,259,987	13·2	3,591,035	23,437

[2]See note to Table 74.

Financial statistics of Canadian telephone companies are given in Tables 76 and 77 below.

76.—Financial Statistics of Telephone Companies, by Provinces, for the calendar year 1927.

Provinces.	Capital stock.	Funded debt.	Cost of property and equipment.	Salaries and wages.	Gross revenue.	Operating expenses.	Net operating revenue.
	$	$	$	$	$	$	$
Prince Edward Island	461,502	194,587	865,088	62,005	172,720	113,526	59,19
Nova Scotia	3,526,889	2,556,292	7,591,796	617,185	1,698,919	1,372,677	326,24
New Brunswick	3,634,020	11,631	4,085,201	579,629	1,268,766	962,746	306,02
Quebec[1]	54,145,907	40,962,744	130,672,728	8,004,077	34,734,862	29,766,493	4,968,36
Ontario	2,967,060	2,385,737	8,667,418	10,803,005	2,302,051	1,971,684	330,36
Manitoba	22,957	20,177,283	18,299,316	1,405,729	3,621,211	3,340,895	280,31
Saskatchewan	817,477	21,841,432	31,064,492	1,040,786	4,439,910	3,546,300	893,61
Alberta	58,038	25,283,372	23,168,305	1,230,588	4,012,006	3,746,885	265,12
British Columbia	10,761,690	2,568,877	19,528,711	2,509,730	4,641,273	3,730,359	910,91
Yukon	65,000	–	56,080	1,871	15,620	10,351	5,26
Total	**76,460,540**	**115,981,955**	**243,999,135**	**26,254,605**	**56,907,338**	**48,561,916**	**8,345,42**

[1]As the head office of the Bell Telephone Co. is situated in Montreal, its very large business with the exception of salaries and wages of employees is necessarily credited to Quebec, though largely transacted outside of that province.

77.—Financial Statistics of Canadian Telephone Companies for the years 1912-1927.

Years.	Capital stock.	Funded debt.	Cost of property and equipment.	Salaries and wages.	Gross revenue.	Operating expenses.	Net operating revenue.
	$	$	$	$	$	$	$
1912	21,533,605	24,743,247	56,887,799	2,659,642	12,273,627	9,094,689	3,178,93
1913	26,590,501	33,256,503	69,214,971	6,839,309	14,897,278	11,175,689	3,721,58
1914	28,644,340	41,647,554	80,258,356	8,250,253	17,297,269	12,882,402	4,414,86
1915	28,947,122	45,337,869	83,792,583	8,357,029	17,601,673	12,836,715	6,764,95
1916	29,416,956	47,503,358	88,520,021	7,852,719	18,594,268	11,147,201	7,447,06
1917	29,476,367	49,645,335	94,469,534	8,882,593	20,122,282	12,095,426	8,026,85
1918	29,803,090	55,471,601	104,368,627	10,410,807	22,753,280	13,644,524	9,108,75
1919	35,227,233	65,360,600	125,017,222	15,774,586	29,401,006	20,081,436	9,319,57
1920	36,149,838	80,539,367	144,560,969	17,294,405	33,473,712	28,044,401	5,429,31
1921	42,194,426	90,343,345	158,678,229	19,000,422	36,986,913	30,080,035	6,906,87
1922	48,968,198	94,833,825	167,332,932	17,305,759	39,559,149	29,966,181	9,592,96
1923	57,366,675	95,306,347	179,002,152	18,182,429	42,132,959	32,390,370	10,266,25
1924	63,798,133	96,216,887	193,884,378	18,293,234	44,322,598	33,615,686	10,706,99
1925	65,514,130	102,653,161	210,535,795	19,106,383	47,233,617	35,566,947	11,666,67
1926	68,345,999	110,805,099	227,155,900	20,413,173	50,522,859	38,141,360	12,381,49
1927	76,460,540	115,981,955	243,999,135	26,254,605	56,907,338	48,561,916	8,345,42

[1]Figures for the years 1912–1918 are from July 1 to June 30; those for the years 1919–1927 are from January to Dec. 31.

PART XII.—THE POST OFFICE.

Historical.—A postal service was established between Montreal and Quebec as early as 1721, official messengers and other travellers making a practice of carrying letters for private persons. When Canada came under British rule the Post Office was placed on a settled footing by Benjamin Franklin, then Deputy Postmaster-General for the American colonies, who visited Canada in 1763, opened post offices at Quebec, Montreal and Three Rivers, and also established courier communication between Montreal and New York. Since 1755 Halifax had had a post office and direct postal communication with Great Britain.

As a consequence of the American Revolution and the resulting isolation of Canada from Nova Scotia, the first exclusively Canadian postal service, a monthly courier route from Halifax to Quebec, was established in 1788, involving a seven weeks' trip and expenses of about £200, of which only one-third was met by postal charges. Up to 1804 the postal facilities of Upper Canada consisted of one regular trip by courier each winter with whatever mail might reach Montreal during the season of navigation. Charges were necessarily high, $1.12 being paid on ordinary letters from London to Toronto *via* Halifax.

The first post office in Toronto was opened about 1800. By 1816 there were 19 offices in the two Canadas, and in 1827 this number had increased to 114. At this time the system consisted primarily of a trunk line of communication between Halifax, Quebec, Montreal, Toronto and Amherstburg, over which couriers travelled at varying intervals. Branching off this line were routes to Sorel, Sherbrooke, St. Johns, Hull, Hawkesbury, Perth and Richmond, with most deliveries made once or twice a week.

Hitherto the Post Office had been under the control of the Imperial Department, but considerable agitation resulted in the service being transferred on April 6, 1851, to the several provinces. Only enough mutual control was maintained to insure the continuance of Imperial and intercolonial services. The provinces had complete jurisdiction over the establishment and maintenance of systems and rates.

At Confederation the provincial systems were transferred to the Dominion. The Post Office Act of 1867 established a service throughout Canada. The domestic rate on letters was reduced from 5 to 3 cents per half-ounce, and in 1870 the rates to the United States and Great Britain were reduced from 10 to 6 cents and from 12½ to 6 cents respectively per half-ounce. In 1875 a convention between Canada and the United States reduced postal rates between the countries to the domestic level. In 1878, on the admission of Canada to the Postal Union, letter postage to the countries of the Postal Union was reduced to 5 cents per half-ounce. After a conference in 1897, Imperial penny postage (2 cents per half-ounce) was established on Dec. 25, 1898, while the domestic rate was reduced from 3 to 2 cents per ounce. These rates were maintained until 1915, when a 1-cent war tax was imposed on all pay letters and post cards (except where this would be in violation of international agreements), and also on postal notes. Later the rate to Great Britain was increased to 4 cents on the first and 3 cents on succeeding ounces, while that to Postal Union countries was raised to 10 cents on the first and 5 cents on succeeding ounces. Penny postage again became effective for Canada, the United States, Newfoundland and other countries of the continent of North America on July 1, 1926, and for Great Britain and all other places within the British Empire on Dec. 25, 1928. For these countries the rate is 2 cents per ounce, while for Postal Union countries it is 8 cents on the first ounce and 4 cents on succeeding ounces. In spite of reductions of from 20 p.c. to 33 p.c. represented by these changes, which were effective for 9 months of the fiscal year 1927, Table **80** shows a comparatively small reduction in the net revenue of the Post Office Department in that year, while in the fiscal year 1928, during the whole of which penny postage was in effect for inland post and for the countries of North America, the net revenue of the Department increased by more than $1,000,000 over that of 1927. The effect of the reduction in rates was largely offset by increases in postal business.

The Post Office Department is administered by the Postmaster-General. Besides the several administrative branches at Ottawa, the Dominion is divided

into 15 districts, each in charge of a Superintendent of Postal Service. The Canadian system embraces a territory more extensive than that served by any other systems except those of the United States and Russia, the sparsity of population and the comparative lack of development making inevitable a peculiarly difficult and expensive service.

Rural Mail Delivery.—A system of rural mail delivery was inaugurated in Canada on Oct. 10, 1908, limited at that time to existing stage routes, persons residing on such routes being entitled to have mail boxes put up in which the mail carrier was to deposit mail matter and from which he was to collect mail matter and carry it to the post office. As a consequence of the public approval of this scheme, new regulations, taking effect on April 1, 1912, made all persons residing in rural districts along and contiguous to well-defined main thoroughfares of one mile and upwards eligible to receive their mail in this manner, while couriers of rural mail routes were also required to sell postage stamps and take applications for and accept money, money orders and postal notes. The result has been an increase in the number of rural routes from approximately 900 in 1912 to 3,838 in 1928, having 204,693 mail boxes as against approximately 25,000 in 1912. The establishment of these routes has been an important factor in the amelioration of the conditions of Canadian rural life.

Statistics.—Tables 78 to 80 show the number of post offices in operation in Canada in the last six years, the gross revenue in all offices collecting $10,000 and upwards in 1927 and 1928 and the revenue and expenditure of the Department in various years since 1890.

78.—Number of Post Offices in Operation in the several Provinces of Canada, Mar. 31, 1923-1928.

Provinces.	1923.	1924.	1925.	1926.	1927.	1928.
Prince Edward Island	133	131	130	131	130	128
Nova Scotia	1,836	1,819	1,793	1,791	1,778	1,771
New Brunswick	1,139	1,131	1,126	1,119	1,113	1,114
Quebec	2,325	2,366	2,396	2,429	2,463	2,514
Ontario	2,577	2,597	2,588	2,613	2,614	2,604
Manitoba	803	816	813	818	817	817
Saskatchewan	1,403	1,408	1,414	1,433	1,428	1,428
Alberta	1,194	1,215	1,211	1,203	1,195	1,200
British Columbia	849	855	871	868	867	866
Yukon Territory	20	19	19	20	20	20
Northwest Territories	9	13	15	14	15	16
Total	**12,288**	**12,370**	**12,376**	**12,439**	**12,440**	**12,478**

79.—Statistics of Gross Postal Revenue of Offices collecting $10,000 and upwards, for the fiscal years ended Mar. 31, 1927 and 1928.

Name of Post Office.	1927.	1928.	Name of Post Office.	1927.	1928.
P. E. Island.	$	$	**Nova Scotia**—concluded.	$	$
Charlottetown	56,278	58,636	New Glasgow	31,631	34,687
Summerside	18,252	18,701	North Sydney	15,539	17,853
			Pictou	11,698	12,738
Total for Province	**136,664**	**144,550**	Springhill	10,873	13,405
			Stellarton	8,247	10,708
Nova Scotia.			Sydney	60,611	64,088
Amherst	32,257	30,477	Sydney Mines	8,181	10,324
Antigonish	12,438	12,545	Truro	49,556	52,999
Bridgewater	14,406	15,248	Windsor	15,977	16,941
Dartmouth	11,828	[1]	Wolfville	11,279	12,771
Glace Bay	14,964	18,343	Yarmouth	26,555	25,889
Halifax	410,075	437,155			
Kentville	16,448	17,821	**Total for Province**	**1,191,968**	**1,288,671**
Lunenburg	10,385	12,297			

[1]Included with Halifax in 1928.

79.—Statistics of Gross Postal Revenue of Offices collecting $10,000 and upwards, for the fiscal years ended Mar. 31, 1927 and 1928—continued.

Name of Post Office.	1927.	1928.
	$	$
New Brunswick.		
Bathurst	11,137	12,514
Campbellton	19,985	21,809
Chatham	11,656	12,646
Edmundston	11,825	14,449
Fredericton	62,134	66,848
Moncton	485,240	482,579
Newcastle	10,605	11,680
Saint John	245,503	247,752
St. Stephen	17,526	17,719
Sackville	14,871	16,334
Sussex	13,548	15,021
Woodstock	18,137	19,561
Total for Province	**1,211,982**	**1,260,495**
Quebec.		
Chicoutimi	28,349	33,063
Coaticook	9,963	11,082
Drummondville East	11,914	15,325
Farnham	9,773	10,760
Gardenvale	11,371	9,708
Granby	15,347	22,064
Hull	23,884	25,721
Joliette	18,554	19,470
Jonquières	10,837	12,512
Kenogami	8,107	10,390
Lévis	5,607	20,055
Magog	9,039	10,360
Montreal	3,840,369	4,213,176
Quebec	555,012	566,574
Rimouski	12,208	13,594
Rouyn	5,964	15,957
St. Hyacinthe	29,623	32,509
St. Johns	18,699	21,979
St. Jérôme	10,241	11,390
Shawinigan Falls	21,911	24,429
Sherbrooke	102,925	105,456
Sorel	11,078	12,002
Thetford Mines	13,144	17,899
Three Rivers	66,226	68,323
Valleyfield	11,850	13,060
Victoriaville	13,947	15,097
Total for Province	**6,157,454**	**6,743,229**
Ontario.		
Amherstburg	8,932	10,146
Arnprior	13,409	14,943
Aurora	19,655	18,798
Aylmer West	11,392	12,669
Barrie	24,299	26,623
Belleville	55,710	59,815
Bowmanville	11,738	13,771
Bracebridge	11,842	13,099
Brampton	22,227	23,434
Brantford	139,026	143,634
Bridgeburg	19,080	22,573
Brockville	46,403	47,086
Carleton Place	16,210	17,457
Chatham	62,801	65,625
Cobalt	25,732	30,160
Cobourg	34,681	44,173
Cochrane	15,747	19,147
Collingwood	18,896	19,490
Cornwall	33,416	36,073
Dundas	14,498	15,837
Dunnville	18,845	18,334
Fergus	13,472	15,096
Fort Frances	18,185	21,493
Fort William	72,307	83,535
Galt	62,552	62,983
Gananoque	15,794	18,288
Goderich	16,068	16,655
Grimsby	12,282	12,878
Guelph	97,874	102,026
Haileybury	11,447	12,179
Hamilton	541,735	570,159
Hanover	11,937	13,061
Hawkesbury	8,628	10,791
Huntsville	13,038	15,078
Ingersoll	22,056	23,387
Kapuskasing	8,888	17,532
Kenora	22,655	24,306
Kincardine	12,608	14,038
Kingston	108,468	107,016
Kingsville	9,339	10,036
Kirkland Lake	12,599	20,777
Kitchener	112,945	121,648
Leamington	17,627	19,204
Lindsay	32,454	32,217
Listowel	14,347	14,966
London	466,044	482,296
Midland	21,402	22,814
Milton West	9,004	10,042
Napanee	17,906	18,868
New Liskeard	14,402	17,525
Newmarket	14,593	14,809
New Toronto	36,803	22,328
Niagara Falls	119,001	125,346
North Bay	50,410	56,050
Oakville	13,625	14,613
Orangeville	9,288	10,844
Orillia	37,604	40,127
Oshawa	79,237	96,566
Ottawa	578,531	608,634
Owen Sound	46,604	47,010
Paris	22,998	26,746
Parry Sound	12,880	14,203
Pembroke	28,542	31,529
Perth	26,080	25,251
Peterborough	101,123	105,738
Petrolia	11,518	12,441
Picton	15,621	16,934
Port Arthur	55,486	62,157
Port Colborne	19,228	22,020
Port Hope	19,269	21,022
Prescott	12,308	13,891
Preston	20,163	21,716
Renfrew	24,238	25,063
St. Catharines	85,485	91,216
St. Marys	15,775	18,267
St. Thomas	61,856	61,543
Sarnia	58,973	59,728
Sault Ste. Marie	66,628	68,299
Simcoe	24,364	29,192
Smiths Falls	24,773	26,257
Stratford	65,470	62,575
Strathroy	11,272	12,176
Sturgeon Falls	9,260	10,048
Sudbury	50,151	56,232
Thorold	11,784	11,641
Tillsonburg	13,292	13,638
Timmins	33,097	38,536
Toronto	6,625,683	7,078,919
Trenton	19,235	20,408
Walkerton	9,696	10,827
Wallaceburg	12,709	14,074
Waterloo	40,103	39,332
Welland	40,362	44,860
Weston	19,693	18,969
Whitby	13,312	16,910
Windsor	367,142	386,622
Wingham	10,871	11,918
Woodstock	53,125	56,261
Total for Province	**13,257,702**	**14,192,841**

79.—Statistics of Gross Postal Revenue of Offices collecting $10,000 and upwards, for the fiscal years ended Mar. 31, 1927 and 1928—concluded

Name of Post Office.	1927.	1928.
Manitoba.		
Brandon	101,316	103,208
Dauphin	19,218	21,207
Neepawa	10,420	11,171
Portage la Prairie	28,239	29,317
The Pas	8,755	13,950
Virden	8,947	10,611
Winnipeg	3,279,374	3,540,009
Total for Province	**3,930,467**	**4,259,522**
Saskatchewan.		
Assiniboia	10,946	12,407
Biggar	8,707	10,767
Estevan	18,155	20,389
Humboldt	10,553	11,310
Lloydminster	10,895	13,243
Melfort	12,618	14,245
Melville	12,977	13,851
Moose Jaw	130,693	136,782
North Battleford	24,401	27,298
Prince Albert	40,776	43,031
Regina	789,159	869,098
Rosetown	8,673	10,541
Saskatoon	280,943	311,590
Shaunavon	10,654	12,131
Swift Current	28,591	30,984
Weyburn	27,787	30,083
Yorkton	30,024	31,503
Total for Province	**2,514,930**	**2,975,280**
Alberta.		
Banff	17,375	21,162
Calgary	556,872	605,178
Camrose	13,186	15,700
Drumheller	14,180	18,121
Edmonton	443,949	477,925
Hanna	8,871	10,739
Lacombe	9,527	10,469
Lethbridge	61,148	68,153
Medicine Hat	35,945	39,993
Red Deer	16,594	18,477
Stettler	9,696	10,770
Vegreville	9,287	11,529
Alberta—concluded.	$	$
Vermilion	10,277	10,685
Wetaskiwin	12,060	12,332
Total for Province	**1,888,409**	**2,203,904**
British Columbia.		
Chilliwack	13,402	15,036
Cranbrook	19,293	20,477
Duncan	17,130	18,53[illegible]
Fernie	14,129	16,007
Kamloops	29,058	31,234
Kelowna	18,942	21,361
Nanaimo	24,345	27,578
Nelson	38,722	39,53[illegible]
New Westminster	68,806	76,671
Penticton	16,883	18,266
Powell River	11,744	12,79[illegible]
Prince George	11,523	12,845
Prince Rupert	32,042	34,560
Revelstoke	15,572	15,092
Trail	20,382	26,694
Vancouver	1,206,426	1,295,161
Vernon	24,942	27,849
Victoria	244,084	268,405
Total for Province	**2,303,243**	**2,542,240**
Yukon.		
Total for Yukon	**11,293**	**12,598**
SUMMARY.		
P.E. Island	136,664	144,550
Nova Scotia	1,191,968	1,288,671
New Brunswick	1,211,982	1,260,495
Quebec	6,157,454	6,743,229
Ontario	13,257,702	14,192,841
Manitoba	3,930,467	4,259,522
Saskatchewan	2,514,930	2,975,280
Alberta	1,888,409	2,203,904
British Columbia	2,303,243	2,542,240
Yukon	11,293	12,598
Total	**32,604,112**	**35,623,330**

80. Revenue and Expenditure of the Post Office Department for the quinquennial fiscal years ended 1890-1910, and for the fiscal years ended Mar. 31, 1911-1928.

NOTE.—For all other years since 1868, see Canada Year Book, 1911, p. 288.

Fiscal Years.	Net revenue.	Expenditure.	Deficit.	Surplus.
	$	$	$	$
1890	2,357,389	3,074,470	717,081	–
1895	2,729,790	3,593,647	800,857	–
1900	3,183,984	3,645,646	461,662	–
1905	5,125,373	4,634,528	–	490,845
1910	7,958,547	7,215,337	–	743,210
1911	9,146,952	7,954,223	–	1,192,729
1912	10,482,255	9,172,035	–	1,310,220
1913	12,060,476	10,882,805	–	1,177,671
1914	12,956,216	12,822,058	–	134,158
1915	13,046,650	15,961,191	2,914,541	–
1916	18,858,410	16,009,139	–	2,849,271
1917	20,902,384	16,300,579	–	4,601,805
1918	21,345,394	18,046,558	–	3,298,836
1919	21,602,713	19,273,584	–	2,329,129
1920	24,449,917	20,774,385	–	3,675,532
1921	26,331,119	24,661,262	–	1,669,857
1922	26,554,538	28,121,425	1,566,887	–
1923	29,262,233	27,794,502	–	1,467,731
1924	29,100,492	28,305,937	–	794,555
1925	28,581,993	29,873,802	1,291,809	–
1926	31,024,464	30,499,686	–	524,778
1927	29,378,697	31,007,698	1,629,001	–
1928	30,529,155	32,379,196	1,850,041	–

Auxiliary Services.—The auxiliary postal services—the issuing of money orders (including postal notes) and the facilities offered by the Post Office savings banks—have expanded enormously since Confederation. In 1868, for example, there were 515 money order offices in operation, issuing orders to an amount of $3,342,574. In 1928 the number of offices had increased to 5,923, while the value of orders issued was more than 60 times as large as in the earlier year. In the following tables, illustrating the use of money orders and postal notes, it will also be noticed that the large number of 17,505,563 money orders, representing a value of $200,773,403, was issued during 1928. The number of postal notes received and paid was 7,490,169, with a value of $16,673,633. It may be added that postal notes are issued payable to bearer and are in general use for the transfer of small sums, while money orders, on the other hand, are payable to order at a designated post office. Statistical tables showing the operation of the Post Office savings banks and the Dominion Government savings banks since Confederation are included in the chapter on Private Finance. (See pp. 863-4).

81.—Operation of the Money Order System in Canada, fiscal years ended June 30, 1901-1906, and Mar. 31, 1907-1928.

NOTE.—For 1868 to 1900, see Canada Year Book, 1911, p. 289.

Fiscal Years.	Money Order Offices in Canada.	Orders issued in Canada.	Value of orders issued in Canada.	Payable in		Value of orders issued in other countries, payable in Canada.
				Canada.	Other countries.	
	No.	No.	$	$	$	$
1901	1,904	1,151,024	17,956,258	14,324,289	3,631,969	2,592,845
1902	2,066	1,446,129	23,549,402	18,423,035	5,126,367	3,575,803
1903	2,125	1,668,705	26,868,202	20,761,078	6,107,124	4,604,528
1904	2,214	1,869,233	29,652,811	21,706,474	7,946,337	5,197,122
1905	2,494	1,924,130	32,349,476	23,410,485	8,938,991	5,602,257
1906	2,676	2,178,549	37,355,673	26,133,565	11,222,108	6,533,201
1907 (9 mos.)	2,789	1,845,278	32,160,098	21,958,855	10,201,243	5,393,042
1908	2,918	2,990,691	49,974,007	31,836,629	18,137,378	7,933,361
1909	3,114	3,596,299	52,627,770	36,577,552	16,050,218	7,794,751
1910	3,311	4,178,752	60,967,162	41,595,205	19,371,957	8,048,467
1911	3,501	4,840,896	70,614,862	45,451,425	25,163,437	8,664,557
1912	3,673	5,777,757	84,065,891	52,568,433	31,497,458	8,712,667
1913	3,923	6,866,563	101,153,272	61,324,030	39,829,242	9,081,627
1914	4,274	7,227,964	109,500,670	66,113,221	43,387,449	9,807,313
1915	4,499	6,990,813	89,957,906	64,723,941	25,233,965	9,707,383
1916	4,690	7,171,375	94,469,871	75,781,582	18,688,289	9,868,137
1917	4,810	8,698,502	119,695,525	97,263,961	22,431,574	9,704,610
1918	4,930	9,919,665	142,959,167	116,764,491	26,194,676	9,385,627
1919	4,953	9,100,707	142,375,809	116,646,096	25,729,713	10,351,021
1920	5,106	9,947,018	159,224,937	135,201,816	24,023,121	10,050,361
1921	5,197	11,013,167	173,523,322	155,916,232	17,607,090	6,680,971
1922	5,266	10,031,198	139,914,186	124,316,726	15,597,460	5,515,069
1923	5,337	11,098,222	143,055,120	126,617,350	16,437,770	8,986,041
1924	5,472	12,561,490	159,855,115	141,620,372	18,234,743	13,508,396
1925	5,578	13,435,448	163,519,320	145,769,761	17,749,559	13,957,613
1926	5,706	14,784,230	177,840,231	158,844,831	18,995,400	15,600,917
1927	5,797	15,760,994	188,219,777	167,206,859	21,012,918	15,532,673
1928	5,923	17,505,563	200,773,403	177,880,036	22,893,367	15,398,181

Attention may be drawn to the difference between the value of orders issued in Canada and payable in other countries and those issued elsewhere payable in Canada. This difference (about $7,495,000 in 1928 and about $33,580,000 in 1914) represents to a large extent remittances made by immigrants and to travellers in foreign countries. It is an indication, at least, of the large amounts sent out from Canada, and is an essential figure in the computation of our balance of trade.

82.—Money Orders, by Provinces, and Total Postal Notes, fiscal years ended Mar. 31, 1924-1928.

Provinces.	1924.	1925.	1926.	1927.	1928.
Money order offices in—	No.	No.	No.	No.	No.
Canada	**5,472**	**5,578**	**5,706**	**5,797**	**5,923**
Prince Edward Island	64	65	67	68	68
Nova Scotia	366	373	376	382	38[illegible]
New Brunswick	256	261	266	269	28[illegible]
Quebec	1,178	1,202	1,218	1,237	1,25[illegible]
Ontario	1,555	1,587	1,614	1,632	1,65[illegible]
Manitoba	367	374	380	391	40[illegible]
Saskatchewan	696	720	769	779	80[illegible]
Alberta	529	533	541	555	57[illegible]
British Columbia	456	458	470	478	48[illegible]
Yukon Territory	5	5	5	6	[illegible]
Money orders issued in—	No.	No.	No.	No.	No.
Canada	**12,561,490**	**13,435,448**	**14,784,230**	**15,760,994**	**17,505,563**
Prince Edward Island	84,639	91,729	109,072	120,521	132,44[illegible]
Nova Scotia	865,954	913,681	959,404	1,020,974	1,082,89[illegible]
New Brunswick	495,285	528,041	562,454	599,785	625,93[illegible]
Quebec	1,618,558	1,818,923	2,020,164	2,250,437	2,680,29[illegible]
Ontario	3,809,106	4,052,189	4,354,157	4,589,798	4,814,71[illegible]
Manitoba	883,641	979,684	1,042,751	1,134,566	1,251,05[illegible]
Saskatchewan	2,274,027	2,384,732	2,853,667	2,994,600	3,476,74[illegible]
Alberta	1,511,045	1,595,753	1,754,065	1,851,985	2,128,61[illegible]
British Columbia	1,011,514	1,062,217	1,119,514	1,188,970	1,302,14[illegible]
Yukon Territory	7,721	8,499	8,952	9,358	10,71[illegible]
Receipts for money orders issued in—	$	$	$	$	$
Canada	**159,855,115**	**163,519,320**	**177,840,231**	**188,219,777**	**200,773,40[illegible]**
Prince Edward Island	1,054,771	1,095,471	1,314,360	1,459,751	1,558,411
Nova Scotia	10,200,072	10,380,702	10,436,131	11,093,311	11,498,537
New Brunswick	6,055,231	6,291,499	6,638,410	7,057,262	7,272,069
Quebec	19,798,941	21,743,665	23,145,950	25,869,584	27,320,599
Ontario	46,398,064	47,194,968	49,243,261	52,035,548	53,329,608
Manitoba	10,665,567	12,109,309	12,506,314	13,708,401	14,024,147
Saskatchewan	31,253,787	30,557,987	37,639,210	38,338,614	41,740,502
Alberta	20,110,713	19,796,411	22,286,484	23,327,673	27,807,168
British Columbia	14,726,848	14,157,524	14,436,505	15,124,890	15,986,960
Yukon Territory	181,121	191,785	193,605	204,744	235,401
Number of money orders paid in—	No.	No.	No.	No.	No.
Canada	**11,578,276**	**12,432,831**	**13,671,206**	**14,531,587**	**15,576,988**
Prince Edward Island	41,908	41,840	44,799	45,996	46,171
Nova Scotia	528,579	541,735	583,247	610,237	628,956
New Brunswick	842,453	913,909	890,121	1,019,185	1,091,069
Quebec	1,134,829	1,265,893	1,445,221	1,696,197	1,898,228
Ontario	4,168,751	4,595,186	4,841,161	5,153,755	5,177,944
Manitoba	2,564,358	2,735,698	3,157,140	3,145,486	3,469,756
Saskatchewan	1,236,483	1,302,646	1,556,973	1,650,023	1,890,988
Alberta	566,479	532,817	602,717	613,617	718,610
British Columbia	493,349	502,033	548,709	595,953	654,089
Yukon Territory	1,087	1,074	1,118	1,138	1,177
Amount of money orders paid in—	$	$	$	$	$
Canada	**155,336,773**	**159,301,805**	**174,567,687**	**183,192,237**	**192,416,980**
Prince Edward Island	858,547	823,439	839,312	861,106	882,195
Nova Scotia	7,418,506	7,293,829	7,576,330	7,899,684	7,962,408
New Brunswick	10,342,846	10,803,829	11,572,570	12,062,877	12,157,500
Quebec	16,882,151	17,701,053	19,421,896	22,009,406	23,235,516
Ontario	51,335,317	53,740,159	56,418,617	59,382,950	60,099,268
Manitoba	32,463,883	34,411,381	38,633,180	39,240,302	40,905,097
Saskatchewan	16,680,225	16,411,463	20,182,252	20,930,351	23,908,547
Alberta	10,236,994	9,214,214	10,480,898	10,822,206	12,581,954
British Columbia	9,093,304	8,876,906	9,416,130	9,952,841	10,650,011
Yukon Territory	25,000	25,533	26,501	30,515	34,485
Postal Notes—					
Total notes received and paid.....No.	5,806,129	6,219,630	6,821,378	7,197,896	7,490,169
Total value, including postage stamps affixed..... $	12,657,724	13,926,654	15,340,056	16,183,119	16,673,633
Commission received..... $	135,353	149,317	163,918	176,440	179,487

Postage Stamps.—The value of the postage stamps, post cards, etc., sold during each of the last five fiscal years, as shown in the statement of revenue in the Postmaster General's reports, was as follows:—$30,618,795 in 1924, $29,528,122 in 1925, $30,166,763 in 1926, $26,226,473 in 1927 and $26,200,776 in 1928. The large decrease in the value of the stamps sold in 1927 as compared with 1926 is no doubt partly due to the reduced rates which were effective for 9 months of the fiscal year 1927, but another factor is the rapidly increasing use of devices for

prepaying postage in cash. Receipts from this source were as follows:—$2,046,752 in 1924, $2,400,735 in 1925, $3,895,185 in 1926, $6,068,722 in 1927 and $7,467,611 in 1928.

Subsidies, etc.—The conveyance of mail by land, water and air entailed a total expenditure of $14,226,530 during 1928. Land transportation (largely that by rural delivery) cost $6,291,181; railway carriage cost $7,437,892; conveyance by steamship cost $434,032, while that by air cost $63,425. These amounts were paid solely for services rendered as carriers. In addition, however, considerable mail is carried, on both the Atlantic and Pacific coasts, by steamships and steamship lines which are especially subsidized by the Government. Table 83, showing amounts so paid in 1926, 1927 and 1928, is appended.

83.—Mail Subsidies and Steamship Subventions, fiscal years ended Mar. 31, 1926-1928.

NOTE.—The figures in the following table are taken from the "Public Accounts", issued by the Finance Department; they represent the amounts paid in connection with contracts made under statutory authority by the Department of Trade and Commerce for trade services, including the conveyance of mails.

Services.	1926.	1927.	1928.
	$	$	$
Canada and the West Indies or South America or both	318,949	180,333	–
Canada and South Africa	100,000	100,000	100,000
Canada and New Zealand	100,000	115,385	100,000
Parrsboro, Kingsport and Wolfville	–	5,000	5,000
Saint John and Digby	15,000	15,000	15,000
Saint John, Digby, Annapolis and Granville	2,000	2,000	2,000
Saint John, N.B., and Margaretsville, N.S.	3,500	3,266	3,500
Saint John and Minas Basin ports	5,000	4,615	5,000
Saint John, Westport and Yarmouth	15,000	15,000	15,000
Saint John and Bridgetown	1,000	–	1,000
Halifax, La Have, and La Have river ports	6,000	5,423	5,596
Halifax, Canso and Guysboro	9,000	9,000	9,000
Halifax and Spry bay and ports in Cape Breton	6,000	5,281	6,000
Halifax and west coast of Cape Breton island	6,000	6,000	6,000
Halifax, south Cape Breton and Bras d'Or lake ports	5,000	5,000	5,000
Pictou, Souris and the Magdalen islands	50,000	50,000	50,000
Grand Manan and mainland	20,000	20,000	20,000
Miscou and Shippegan islands and mainland	2,000	2,000	2,000
Quebec, Montreal and Paspebiac	60,000	60,000	60,000
Quebec, Natashquan and Harrington	85,000	85,000	85,000
St. Catherine's Bay and Tadoussac	2,000	2,000	3,500
Pictou and Montague, Murray Harbour, etc., and Georgetown	3,867	2,267	–
Pictou and New Glasgow and Antigonish County ports and Mulgrave	1,500	1,500	–
Port Mulgrave and Guysboro	8,765	14,000	14,000
Port Mulgrave, St. Peter's, etc	10,300	7,750	10,350
Port Mulgrave and Canso	13,500	28,125	27,400
Pictou, Mulgrave and Cheticamp	11,000	11,000	11,000
Petit de Grat and Mulgrave I.C.R. terminus	10,000	13,000	13,000
Baddeck and Iona	10,500	10,500	10,500
Sydney and Whycocomagh	13,000	13,000	13,000
Sydney to Bras d'Or lake ports and ports on east and west coasts of Cape Breton island	18,000	19,000	18,000
Sydney and bay St. Lawrence ports	10,500	18,000	18,000
Charlottetown, Pictou and New Glasgow	25,000	31,346	35,000
Victoria, Vancouver and Skagway	25,000	25,000	24,107
Charlottetown, Victoria and Holliday's Wharf	4,000	5,000	5,000
Victoria and Vancouver island (west coast)	15,000	15,000	15,000
Newcastle, Neguac and Escuminac, Miramichi river and bay	4,500	4,500	4,500
Pelee island and mainland	11,000	13,750	11,000
Prince Rupert, B.C., and Queen Charlotte islands	20,596	21,000	21,000
Vancouver and ports on Howe sound	5,000	6,250	5,000
Vancouver and the British West Indies	–	–	24,000
Saint John and St. Andrews, N.B.	3,000	4,000	4,000
Saint John, Bear River and way ports	2,000	2,500	2,000
Saint John and Weymouth	1,500	1,463	1,500
Dalhousie, N.B., and Carleton, Que	–	2,214	3,000
Halifax, Louisburg and bay St. Lawrence	2,400	2,400	2,400
Rimouski and Pointe aux Outardes	7,500	7,500	7,500
Rivière du Loup and Tadoussac, etc	–	–	13,021
Summerville, Burlington and Windsor	500	500	467
Vancouver and northern ports of B.C.	24,800	31,000	24,800
Grant to British Columbia for mail service on inland waters	–	3,000	3,000
Expenses in connection with the supervision of subsidized steamship services	3,862	4,131	4,450
Total Subsidies and Subventions	1,078,038	1,008,999	844,591

CHAPTER XIX.—LABOUR AND WAGES.

PART I.—LABOUR.

Section 1.—Occupations of the People.

This section, formerly appearing in the Labour and Wages chapter of the Year Book, has been transferred to the Population chapter, where a fairly extended analysis of the occupations of the people in 1921 appears for the first time at pp. 134-147.

Section 2.—The Dominion Department of Labour.

The Department of Labour of the Dominion Government was established in 1900 under the authority of the Conciliation Act, 1900 (63-64 Vict., c. 24). Its chief duties originally comprised the administration of certain provisions of this statute designed to aid in the prevention and settlement of labour disputes, the administration of the Government's fair wage policy for the protection of workmen employed on Dominion Government contracts and on works aided by grants of public funds, the collection and classification of statistical and other information relative to conditions of labour, and the publication of a monthly periodical known as the "Labour Gazette". From 1900 to 1909 the Department was administered by the Postmaster-General, who was also Minister of Labour. It was constituted a separate Department under the Labour Department Act, 1909 (R.S.C. 1927, c. 111).

The work of the Department was greatly increased in 1907 by the passage of the Industrial Disputes Investigation Act (R.S.C. 1927, c. 112). At present the Department is also charged with the administration of an Act passed in 1918 known as the Employment Offices Co-ordination Act (R.S.C. 1927, c. 57), the Government Annuities Act of 1908 (R.S.C. 1927, c. 7), the Technical Education Act, enacted in 1919 (R.S.C. 1927, c. 193), the White Phosphorus Matches Act of 1914 (R.S.C. 1927, c. 128), the Combines Investigation Act of 1923 (R.S.C. 1927, c. 26), and the Old Age Pensions Act of 1927 (R.S.C. 1927, c. 156). The scope of the Department has increased in other directions, especially in the investigation of the cost of living and in connection with the International Labour Organization of the League of Nations. Reference is made elsewhere in the present volume to the operations of the Government Annuities Act, 1908 (see p. 892), and the Technical Education Act (see p. 913), also to the proceedings which have taken place under the Combines Investigation Act, 1923 (see p. 763-764).

Industrial Disputes Investigation Act.—The Industrial Disputes Investigation Act, (R.S.C. 1927, c. 112), has attracted considerable favourable attention from legislators and publicists throughout the world. As enacted in 1907, it forbids strikes and lockouts in industrial disputes affecting mines and public utilities until the matters in dispute have been dealt with by a board of conciliation and investigation consisting of three members, two appointed by the Minister of Labour on the recommendation of the respective parties to the dispute, the third on the recommendation of the first two, or if they fail to agree, by the Minister himself. After their report has been made, either of the parties to the dispute may reject it and declare a strike or a lockout, a course adopted, however, only in a small

percentage of cases. The machinery of the Act may be extended to other industries with the consent of the parties concerned. In January, 1925, a judgment was rendered by the Judicial Committee of the Privy Council declaring that the Act as it stood was not within the competence of the Dominion Parliament.[1] So at the ensuing session of Parliament amendments were made to the Statute, with the object of limiting its operations to matters that are not within exclusive provincial jurisdiction. It was also provided by these amendments that the Statute should apply in the case of "any dispute which is within the exclusive legislative jurisdiction of any province and which by the legislation of the province is made subject to the provisions of this Act".

The Legislatures of six of the provinces, namely, British Columbia, Alberta, Saskatchewan, Manitoba, New Brunswick and Nova Scotia, have taken advantage of this provision and enacted enabling legislation, by which the Dominion Industrial Disputes Investigation Act becomes operative in respect of disputes of the classes named in the Dominion law and otherwise within exclusive provincial jurisdiction.

A review of the proceedings under the Industrial Disputes Investigation Act from its enactment in March, 1907, to Mar. 31, 1928, shows that during the 21 years 684 applications were received for the establishment of boards of conciliation and investigation, as a result of which 472 boards were established. In all but 37 cases, strikes (or lockouts) were averted or ended.

Fair Wages Branch.—The Fair Wages Branch of the Department of Labour is charged with the preparation of schedules of minimum wage rates, which are inserted in Dominion Government contracts and must be adhered to by contractors in the execution of such works. The number of fair wage schedules prepared, from the adoption of the Fair Wages Resolutions in 1900 up to the end of the fiscal year 1927-28, was 4,487. The number of fair wage schedules and clauses furnished during the fiscal year 1927-28 was 145.

Fair wage conditions are also inserted in contracts for the manufacture of certain classes of government supplies and in contracts for all railway construction to which the Dominion Government has granted financial aid, either by way of subsidy or guarantee.

An Order in Council was passed in September, 1928, providing for the payment of current wage rates to workmen employed in the construction, alteration, extension, maintenance and operation of works for utilisation of water powers under license from the Dominion Government. The Fair Wages Clause was also inserted in an important agreement made by the Dominion Government with one of the paper companies for the cutting of pulpwood in the province of Manitoba, under which the company agreed to pay to those employed in the industry wage rates not less than those generally accepted as current in each trade or occupation in similar industries, and to maintain conditions of labour not less favourable than those prevailing in similar industries in the district.

The Department of Labour is frequently consulted by other Departments of the Government regarding the wage rates to be observed in connection with work undertaken on the day labour plan.

Labour Gazette.—A monthly publication, known as the Labour Gazette, has been issued by the Dominion Department of Labour since its establishment in 1900. It contains a monthly review of the industrial situation in Canada and of the state

[1]See page 241 of Labour Gazette for February, 1925, for text of judgment of the Judicial Committee of the Privy Council in regard to the validity of this statute.

of employment, including reports of the operations of the Employment Service of Canada in the various provinces, also information relative to labour legislation, wage, rates and hours of labour, wholesale and retail prices of staple commodities in Canada and other countries, labour disputes (including the proceedings under the Industrial Disputes Investigation Act), industrial accidents, legal decisions affecting labour, industrial training and technical education, proceedings under the Combines Investigation Act, and other matters of general or current industrial interest. The Labour Gazette is widely distributed throughout Canada, and the statistical and other information contained therein is constantly used in connection with wages and other issues between employers and workers. A subscription charge of 20c. per annum is made for this publication.

Labour Legislation.—Much attention is devoted to labour legislation. Information as to new laws enacted by the Dominion and the provinces is kept up to date, while notes or articles regarding their provisions are published in the Labour Gazette. Since 1917, the Department has published annual reports containing the text of Canadian labour laws enacted during the year, together with an introduction summarizing this legislation under subject headings. These reports are based on a consolidation of Dominion and provincial labour legislation as existing at the end of 1915, which was made from the most recent revised statutes and the subsequent annual volumes of statutes up to 1915, and which formed the Department's report on labour legislation for 1915. Reports on the labour laws enacted in the four succeeding years were published in regular order. The report for 1920 is similar to that for 1915, being a consolidation of Canadian labour legislation as at the end of 1920. Reports supplementary to the 1920 volume were published for the calendar years 1921 to 1926. A consolidated report on labour legislation up to the end of 1928 is in course of preparation. The Department of Labour has also published various articles dealing with provincial labour laws, indicating the extent to which these have been standardized and the differences which exist.

The advantage of uniformity in the laws relating to the welfare of persons engaged in industrial work in the several provinces was pointed out in June, 1919, by a Royal Commission on Industrial Relations, and this view was endorsed by a resolution of the National Industrial Conference held in September, 1919. A commission established in 1920, composed of representatives of the Dominion and Provincial Governments, of employers and of workers, to consider the subject met in Ottawa between April 26 and May 1, 1920, and formulated recommendations looking to greater uniformity in provincial laws relative to workmen's compensation, factory control, mining, and minimum wages for women and girls.

Joint Industrial Councils.—One section of the report of the Royal Commission of 1919 on Industrial Relations dealt with shop committees and industrial councils, the Commissioners urging the adoption in Canada of the principles underlying Whitley councils and kindred systems. The subject was also discussed at the National Industrial Conference of 1919. The committee to which the matter was referred made a unanimous report, urging the necessity for greater co-operation between employer and employee and stating their belief that this end could be furthered by the establishment of joint industrial councils. Information respecting such organizations, furnished by employers throughout Canada, has been assembled and published by the Department of Labour in the form of a special bulletin which also contains facts regarding similar systems in other countries.

In 1928 action was taken towards establishing two advisory committees in the public service of the Government of the Dominion of Canada; both of these

are in the nature of joint industrial councils. The Select Standing Committee on Industrial and International Relations, in reporting to the House of Commons on Mar. 27, 1928, recommended that the Government should establish a National Civil Service Council, composed of representatives of the Government and the organized civil service in equal numbers, to consider and advise the Government upon matters of mutual concern to the Government and civil servants in their respective capacities as employer and employees. Subsequently, invitations were sent out to the eleven larger civil service organizations to name representatives to a joint meeting for the purpose of drafting a constitution for the proposed National Civil Service Council.

Under Order in Council P.C. 2232 of Dec. 22, 1928, there was established an Advisory Committee on the Civil Service Superannuation Act to advise the Treasury Board in respect to matters incidental to the administration of the Act. This Committee is composed of five representatives named by organizations of civil servants and five named by the Government, of whom three are named by the Department of Finance, one by the Department of Insurance and one by the Department of Justice. This committee began its sessions in January, 1929.

Section 3.—Provincial Labour Departments and Bureaus.

The rapid industrial development at the end of the nineteenth century in Quebec and Ontario, the leading manufacturing provinces, brought with it the recognition of the need of special provincial offices to safeguard the interests of labour, with the result that the Ontario Bureau of Labour was established in 1900 and the Quebec Department of Public Works and Labour in 1905. In 1904 an Act was passed in New Brunswick providing for a Bureau of Labour, but this never became operative. Some years later, to cope with conditions created by the growth of industry in the West, Acts were passed providing for the creation of provincial Bureaus of Labour in Manitoba (1915), in British Columbia (1917), in Saskatchewan (1920), and in Alberta (1922).

The Quebec Department of Public Works and Labour.—This Department is in charge of a Minister, assisted by a Deputy Minister of Public Works and a Deputy Minister of Labour. Its duties include the institution and control of inquiries into important industrial questions and those relating to manufactures, and it may collect useful facts and statistics relating thereto, to be transmitted to the Quebec Bureau of Statistics. The Department is charged with the administration of provincial Acts respecting trade disputes, factory inspection, maintenance of fair wage clauses in provincial government contracts, superintendence of licensed registry offices for domestic workers, inspection of boilers and foundries, prevention of fires, establishment and maintenance of provincial employment offices and the issue of educational certificates to wage-earners under 16 years of age. The Department's functions also include the qualifications of electricians and contractors in that line of business and the qualification of stationary engineers and firemen and the inspection of boilers registered under the Interprovincial Code, together with the registering of blue prints in connection with the construction of boilers. The Department publishes annual reports outlining the work performed.

Ontario Department of Labour.—Under the Ontario Department of Agriculture a Bureau of Industries was established in 1882, to take charge of factory inspection and publish statistics relating to industries in the Province. In 1900 a

Bureau of Labour was created under the Ministry of Public Works, and was authorized to collect and release general information respecting labour conditions and industry. In 1916 this Bureau was superseded by the Trades and Labour Branch, still connected with the Department of Public Works, but administered by a superintendent. Three years later, the duties vested in this Branch were transferred in their entirety to a newly-formed Department of Labour, in charge of a Minister and Deputy Minister.

The Department of Labour in Ontario administers the Department of Labour Act, the Stationary and Hoisting Engineers Act, the Building Trades Protection Act, the Factory, Shop and Office Building Act, the Steam Boiler Act, the Employment Agencies Act, the Apprenticeship Act, and the Regulations respecting the Protection of Persons working in Compressed Air. The Department is required to maintain employment offices, to collect information respecting employment, sanitary and other conditions in work-places, wages and hours of work, and to study labour legislation in other parts of the British Empire and in foreign countries, as well as any suggested changes in the labour laws of Ontario. The representatives of the Department of Labour have right of access to offices, factories and other work-places at any reasonable hour, and may be authorized to hold inquiries under the Public Inquiries Act. The Department prepares annual reports which cover the workings of the various Acts administered by it and contain much statistical and other information pertaining to labour. The Minimum Wage Act is administered by a Board of five persons, two of whom are women, and employers and employees are equally represented, with an impartial chairman. The Mothers' Allowances Act provides for the payment of allowances to widows with two or more children and is administered by a Commission of five persons, two of whom are women.

Manitoba Bureau of Labour.—The Act of 1915, establishing the Manitoba Bureau of Labour, provided that it be attached to the Department of Public Works; an amendment of 1922, however, stated it may be attached to that or any other Department, as the Lieutenant-Governor in Council may determine.

The Bureau is established to co-operate with employers, trade unions and others; it is charged with the enforcement of the following Acts:—The Manitoba Factories Act; The Bake Shops Act; The Building Trades Protection Act; The Fair Wage Act; The Electricians License Act; The Elevator and Hoist Act; The Shops Regulation Act; The Public Buildings Act; The Minimum Wage Act; The Steam Boiler Act; the licensing of cinematograph projectionists under The Public Amusements Act; The Fires Prevention Act; The One Day Rest in Seven Act.

Saskatchewan Department of Railways, Labour and Industries.—This was created as a separate Department by an Act passed in 1928. It is presided over by the Minister of Railways, Labour and Industries, assisted by a permanent Deputy Minister. The functions of the Department include the following:—

Administration of the Factories Act and Elevator Regulations, the Building Trades Protection Act, the Act protecting the payment of wages to certain employees, the Mines Act, the Minimum Wage Act, and the Order-in-Council respecting fair wages in government contracts, also of all matters connected with railways, over which the Government of Saskatchewan by any Act may have control. It is also charged with the operation of public free employment offices, the collection and publication of statistics relating to employment—wages and hours of labour throughout the province—strikes and other difficulties; trade unions and labour organizations; the relations between capital and labour, and other subjects connected with industrial problems; the commercial, industrial and sanitary conditions of employ

ment; the natural resources of Saskatchewan and their industrial possibilities; such other matters as may be related to industrial development.

Alberta Bureau of Labour.—The Act of 1922, creating the Alberta Bureau of Labour, provided that the Bureau be in charge of a Minister having under him a Commissioner of Labour. The latter is empowered to collect and publish information and statistics affecting labour, and to administer such Acts as may be assigned to the Bureau by Order in Council. Important among these Acts are the Alberta Government Employment Bureau Act, the Minimum Wage Act, the Boilers Act, the Factories Act and the Theatres Act. The Bureau issues annual reports.

The British Columbia Department of Labour.—This Department was instituted by an Act of 1917, under a Minister and Deputy Minister of Labour. It administers the laws of British Columbia affecting labour, and is empowered to collect information respecting industries, wages, employment, prices, labour organization and other data pertaining to labour problems. Prominent among the Acts under the jurisdiction of the Department are the Minimum Wage Act for female employees, the Male Minimum Wage Act (passed in 1925), the Hours of Work Act, the Semi-Monthly Payment of Wages Act and the Factories Act; it also operates the employment bureaus within the province. The Deputy Minister of Labour is *ex-officio* Chairman of the Board of Adjustment under the Hours of Work Act of 1923, which, with exceptions, provides for the eight-hour working day in industry and is also charged with the duty of administering the Male Minimum Wage Act. Annual reports are published by the Department, containing much information respecting labour matters.

Section 4.—Canada and the International Labour Organization.[1]

The International Labour Organization of the League of Nations was set up in accordance with Part XIII of the Treaties of Peace, to promote the improvement of industrial conditions by legislative action and international agreement.

The Organization comprises the permanent International Labour Office in Geneva, Switzerland, and the International Labour Conference, which meets annually and is composed of four representatives of each Member State, two of whom are Government delegates, while two represent the employers and the employed respectively. Fifty-five countries are members of the International Labour Organization, including all of the important industrial countries of the world except the United States.

The International Labour Office functions as a secretariat of the annual conference, and also collects and publishes information on subjects relating to industrial life and labour. The Office is under the control of a Governing Body consisting of 24 persons appointed by the International Labour Conference, of whom 12 represent Governments, 6 represent employers and 6 represent workers. In addition to its control of the Labour Office, the Governing Body is charged with the preparation of the agenda of the annual conference.

Under the terms of the Peace Treaties, eight of the government seats on the Governing Body are held by the countries of "chief industrial importance." Canada was designated by the Council of the League of Nations as one of the eight states

[1] On this subject see also 1921 Year Book, pp. 607-609; 1922-23 Year Book, pp. 704-707; 1924 Year Book, pp. 666-670; 1925 Year Book, pp. 676-678; 1926 Year Book, pp. 679-681; 1927-28 Year Book, pp. 735-737.

of "chief industrial importance". The Minister of Labour is the government representative on this body. Mr. Tom Moore, President of the Trades and Labour Congress of Canada, is one of the 6 workers' representatives on the Governing Body.

The conclusions of the International Labour Conference are cast in the form of draft conventions or recommendations, addressed to the national governments which comprise the membership of the International Labour Organization. A two-thirds majority of the Conference is required for the adoption of either a draft convention or recommendation. Under the Treaties of Peace, the Member States are bound to bring the draft conventions or recommendations before the authority or authorities within whose competence the subject matter lies, for the enactment of legislation or other action. Thus the findings of the Conference only become binding in the various countries concerned if and when action regarding them is taken by the individual Governments.

Most of the proposals dealt with in the successive meetings of the Labour Conference since its establishment in 1919 have been adjudged by the law officers of the Crown in Canada to fall within provincial jurisdiction. The draft conventions and recommendations of the Conference have in all cases been brought to the attention of the Dominion Parliament, while those which dealt with subjects within provincial control were also referred to the Provincial Governments.

The Dominion Department of Labour is entrusted with the duties arising out of the relations of Canada with the International Labour Organization. These have entailed much correspondence, not only with the International Labour Organization, but also with the different Departments of the Dominion Government, with the Provinces, and with employers' and workers' organizations. Replies have also been prepared in the Department of Labour to various questionnaires issued by the International Labour Office. Performance of these duties has necessitated a close study of the different technical questions which have figured on the agenda of the various conferences and at the meetings of the Governing Body. A bulletin entitled "Canada and the International Labour Conference" was issued by the Department of Labour in February, 1922, furnishing information respecting the International Labour Organization and the subjects which had received attention at the hands of that body. Comprehensive articles dealing with the proceedings of the annual sessions of the International Conference have been published from year to year in the Labour Gazette. These articles contain the text of the various draft conventions and recommendations of this Conference.

Eleven sessions of the International Labour Conference have been held. Twenty-seven draft conventions and 30 recommendations have been adopted at these annual gatherings.

The draft conventions and recommendations of the Conference have, among other subjects, related to the following:—hours of labour, measures for the avoidance of unemployment, employment conditions of women and children, employment conditions of seamen, employment in agriculture, weekly rest, statistics of immigration and emigration, principles of factory inspection, inspection of emigrants on board ship, workmen's compensation for accidents and occupational diseases, sickness and insurance and minimum wages.

Up to December, 1928, 333 ratifications of these conventions had been registered with the League of Nations, 26 had been approved by the competent national authority, 148 had been recommended to the competent national authority for approval, and there were 7 conditional or with delayed application.

Canadian Action on Draft Conventions and Recommendations.—The action taken by the Dominion and the Provincial Governments on the draft conventions and recommendations of the International Labour Conference has been summarized in the articles on this subject published in previous Year Books and referred to in the footnote at the bottom of p. 725.

Section 5.—Organized Labour in Canada.

The Dominion Department of Labour publishes an annual report on labour organization; this sets out the various branches of unionism in existence, the principles on which they are founded, their chief activities, and statistics of the different groups comprised in the trade unions of the Dominion. Reference is also made in this annual report to the principal international labour organizations with which the organized workers of Canada are affiliated.

Trade unionism in Canada occupies a unique position, by reason of the fact that most organized workers in the Dominion are members of organizations whose headquarters are located in a foreign country, *viz.*, the United States. This condition is explained when it is understood that workers move freely from one country to the other in order to find employment. In years gone by, Canadian workmen who sought a livelihood in the United States greatly outnumbered those who came from that country to Canada. As industry was further developed in the United States, there arose a number of unions of various crafts, and with these the Canadian workers soon became affiliated. With the development of industry in the Dominion, many of these Canadians returned to their native land, bringing with them the gospel of trade unionism and collective bargaining as a means of protecting their rights. In many instances these trade unionists became the *nuclei* of strong bodies of organized workers formed in Canadian cities.

In the early part of the nineteenth century, a number of independent trade associations were formed in Canada, the earliest of which there is record being a printers' organization in Quebec city in 1827. The first union known to have been organized in the province of Ontario was also composed of printers, and existed in York (now Toronto) as early as 1832; both of these bodies were later superseded by branches of the International Typographical Union, which in 1869 changed its name from National Typographical Union of the United States, on account of the inclusion of Canadian branches.

In 1851 a branch of the Amalgamated Society of Engineers, a British organization composed of metal mechanics, was established in Toronto. In the years immediately following other branches were organized in other Canadian cities, the society having the whole Dominion for its operations. In 1888 the United Machinists and Mechanical Engineers of America was formed, and, in competition with the Amalgamated Society, entered the field for the membership of eligible craftsmen. The first Canadian lodge (No. 103) of the new body was formed in Stratford, Ont., in 1890, while lodges in Montreal (No. 111) and in Winnipeg (No. 122) were organized before the close of the same year. After the extension of its jurisdiction into Canada, the name of the organization was changed in 1891 to the International Association of Machinists. Since that time, the latter organization has added greatly to its Canadian following, having, at the close of 1927, 85 local lodges with a combined membership of 15,000. On the other hand, the Amalgamated Society never added very greatly to its Canadian following; the largest number of local branches and members on record was in 1919, when they stood at 24 and 3,000 respectively. Negotiations were opened in 1919 by the general officers of the

Amalgamated Society of Engineers and the International Association of Machinists, with a view to effecting an amalgamation. As a result, the Amalgamated Society, on Sept. 30, 1920, withdrew its operations from Canada and the United States, where branches were also in existence, leaving the whole North American continent to the International Association of Machinists.

Another British labour organization to found branches in Canada was the Amalgamated Society of Carpenters and Joiners, now the Amalgamated Society of Woodworkers, which in 1860 chartered a branch in London, 21 years before the establishment of the United Brotherhood of Carpenters and Joiners, now the chief organization of the craft in North America. In this case also, arrangements were finally made whereby members of the Amalgamated Society became also members of the United Brotherhood of Carpenters and Joiners, but retained their connection with the former body for its beneficial features. By a decision of the United Brotherhood in 1922, members of local branches of the Amalgamated Society were prevented from holding certain official positions in the district councils; the United Brotherhood also refused to grant charters to the local branches of the Amalgamated Society formed after the plan of unification became effective. These decisions led to a division, in an effort to overcome which the Amalgamated Society sent a delegation to Canada and the United States, which proposed that the members of the Amalgamated Society should join the United Brotherhood. In 1923, the latter organization gave the branches of the Amalgamated Society until March, 1924, to unite with it, with the same standing they held in the Amalgamated. All branches in the United States and a number in Canada accepted this proposition. The Canadian branches which refused these terms were classed as affiliates of the British organization up until 1924, although they were not controlled by the parent body. In that year the British headquarters granted complete autonomy to the Canadian branches, which then organized as the Amalgamated Carpenters of Canada.

With the practical elimination of the British organizations, the North American field has been left entirely to the labour organizations originating on this continent. These labour bodies are for the most part in affiliation with the American Federation of Labour, which, in addition to dealing with trade matters, speaks for the organized workers of the United States on the subject of legislation. In Canada, the legislative mouthpiece of internationally organized labour is the Trades and Labour Congress, which body is representative of the international labour movement, as its affiliated membership is largely drawn from international organizations which have in the first place been affiliated with the American Federation of Labour. Under the travelling card system now in vogue, members of the various unions move as they desire between the two countries and are entitled to all rights and privileges established in localities where local branches are in existence. Canadian members of international organizations are eligible for the highest offices in the gift of their organizations, and in some instances have been elected to these posts.

In addition to the international trade unions in Canada, there are labour bodies which are termed non-international. Some of these organizations were founded by former members of international unions, who, for various reasons, severed their connection with the parent bodies. There are also a number of independent labour unions in the Dominion whose establishment in a few instances was due to unsatisfied grievances of local unions against their central organizations.

A statement of the development of organized labour in Canada would not be complete without a reference to the Knights of Labour, an organization formed in the United States in 1869, to which all classes of workers were admitted. The

Knights of Labour, which in 1885 reached its greatest numerical strength with about 1,000,000 members, extended its jurisdiction into Canada, establishing district and local assemblies in many localities in the Dominion. Seventeen of these were operating in 1891 in the province of Quebec. Soon after that, however, dissensions took place in the ranks of the organization, owing to the difficulty of uniting workers of different crafts in one body. The international crafts organizations, which had in the meantime become united under the banner of the American Federation of Labour, formed in 1881, offered strong opposition to the Knights of Labour, which in a few years ceased to be an important factor in the labour movement of the continent.

Trades and Labour Congress of Canada.—Through the initiative of the Toronto Trades Assembly (now the Toronto District Trades and Labour Council), the first national labour organization, the Canadian Labour Union, was formed in Toronto in September, 1873. This organization held its second and third annual meetings in 1874 and 1875, but disappeared as a result of the serious depression of the later 70's. In 1883 the Trades and Labour Council of Toronto, feeling the necessity of the wage-earners of Canada having a medium through which to express their opinions, assumed the responsibility of calling another trades and labour congress, which met in Toronto on Dec. 26, with 47 delegates. On the summons of the Toronto council, a second meeting, with 109 delegates, assembled on Sept. 14, 1886, the first occasion on which any labour body outside of the province of Ontario was represented. A permanent organization was effected at this meeting under the name of "Trades and Labour Congress of the Dominion of Canada". This was the title of the organization until 1895, when the title "Trades and Labour Congress of Canada" was adopted in preference to "Canadian Federation of Labour." Since 1886 conventions have been held annually, the 1927 meeting in Edmonton being counted as the 43rd. The Trades and Labour Congress is representative of international trade unionism in the Dominion, the bulk of its membership being drawn from the international organizations which have local branches in Canada. According to reports for 1927, the congress received payment of per capita tax from 55 international bodies and two national organizations which had their entire membership in the Dominion, with a total membership of 105,847 in 1,368 local branches. With other affiliations and unions directly under charter, the congress had in all at the close of 1927 a membership of 114,362 in 1,420 branches.

All-Canadian Congress of Labour.—The All-Canadian Congress of Labour was organized Mar. 16, 1927, by labour bodies not eligible for membership in the old established Trades and Labour Congress of Canada. One of the promoters of the new body was the Canadian Federation of Labour, which was formed as a result of the expulsion from the Trades and Labour Congress of Canada of Knights of Labour Assemblies and all other unions which were composed of members of crafts over which existing international organizations claimed jurisdiction. With the formation of the All-Canadian Congress of Labour the Canadian Federation passed out of existence. At the close of 1927 the All-Canadian Congress of Labour had ten central bodies in affiliation, with a combined membership of 45,411, as well as sixteen directly chartered local unions, with a membership of 868, making a total combined reported membership of 46,279.

Membership of International Organizations in Canada.—At the close of 1927 there were 85 international craft organizations having one or more local branch unions in Canada, four less than the number recorded in 1926. These bodies among them had 1,926 local branches in the Dominion with 204,400 members,

a loss of 152 branches and an increase of 1,868 members as compared with 1926. The international craft organizations represent approximately 63 p.c. of the total of all classes of workers in the Dominion organized under trade union auspices. (Table 2).

Canadian Central Labour Bodies.—There are in Canada 24 Canadian Central Labour Bodies, 17 of which are in direct opposition to the international organizations. In some instances these Canadian Central Labour bodies have been formed by secessionists from international unions. The combined membership of the Canadian Central Labour organizations on Dec. 31, 1927, was 48,435, comprised in 537 local branches (Table 3).

Membership of Independent Units.—There are 37 independent local labour bodies in the Dominion, 26 of which had a membership of 7,623 at the end of 1927. The remaining 11 have not reported as to their standing.

Federation of Catholic Workers of Canada.—During the period when the Knights of Labour operated in Quebec, there existed also four independent unions, one of labourers and three of leather and shoe workers. Up to 1902 these several bodies were represented at the annual conventions of the Trades and Labour Congress of Canada. In that year, in an effort to eliminate a duplication of unions and bring the independent bodies under the banner of the international organizations, the Trades Congress denied them further representation. The Knights of Labour assemblies gradually disappeared, but the independent unions continued to exist. With the advent in 1912 of the Mutual Labour Federation of the North, the first organization to confine membership to adherents of the Roman Catholic church, a stimulus was given to this movement, and several of the existing independent unions, the number of which had increased during the decade 1902-1912, became identified with what are termed National and Catholic unions. In 1918 a conference of these bodies was held in Quebec city, followed by other meetings in Three Rivers in 1919 and Chicoutimi in 1920; the delegates at the later conference, numbering 225 from 120 unions, decided to establish a permanent central body to co-ordinate the work of the scattered units. Accordingly, at the 1921 conference held in Hull, at which approximately 200 delegates representing 89 unions were present, a constitution to govern the new body was approved. The name selected was Federation of Catholic Workers of Canada, and permanent officers were elected, the constitution and by-laws becoming effective on Jan. 1, 1922. From information at hand, there are 104 National and Catholic unions with a combined membership of 25,000.

One Big Union.—A number of delegates from Western Canada to the Quebec convention of 1918, dissatisfied with the alleged reactionary policy of the Trades and Labour Congress of Canada, held a caucus at which it was decided to concentrate their energies towards having the Trades Congress legislate in accordance with their views. Some months later a meeting of delegates was called by the British Columbia Federation of Labour to assemble immediately following the annual convention of that body, which, for the first time in its history, met outside of the province under its jurisdiction, in Calgary. The Conference assembled on Mar. 13, 1919, with 239 delegates present; the outcome of the meeting was the formation of an industrial organization, the "One Big Union". On June 11, 1919, a conference of the advocates of the new body was held in Calgary to further the plans of the organization, which had a membership of 41,150 at the close of 1919. From the outset the O.B.U. met with much opposition from the old-established labour unions, represented by the Trades and Labour Congress of Canada, which was opposed to the substitution of industrial unionism for the existing system of

craft unions. According to information supplied the Department by the general secretary, the O.B.U. at the close of 1927 had 51 units under charter, one of which was located in the United States, as well as four central labour councils (bodies similar to trades and labour councils), the combined reported membership being 19,415.

Total Reported Membership of Organized Labour in Canada.—At the close of 1927 the numerical strength of organized labour in Canada is given by the Department of Labour as follows:—international organizations, 1,926 local branches with an aggregate membership of 204,400; Canadian Central Labour Bodies, 537 branches and 48,435 members; independent units, 37, with 12,447 members; National and Catholic unions, 104, with 25,000 members; grand total, 2,604 local branches and 290,282 members. As compared with 1926, this represents an increase of 89 branches and of 15,678 members.

Table 1 shows by years the membership of trade unions in Canada since 1911. (See also diagram on p. 712 of the 1922-23 Year Book).

1.—Membership of Trade Unions in Canada, 1911-1927.

Years.	Members.	Years.	Members.
1911	133,132	1920	373,842
1912	160,120	1921	313,320
1913	175,799	1922	276,621
1914	166,163	1923	278,092
1915	143,343	1924	260,643
1916	160,407	1925	271,064
1917	204,630	1926	274,604
1918	248,887	1927	290,282
1919	378,047		

International Trade Unions Operating in Canada.—Table 2 gives the names of the 85 international craft labour organizations and the two industrial unions which now carry on operations in Canada, and contains:—(1) the number of branches which were in existence in the Dominion at the close of 1927, and (2) the reported membership. The reported membership in Tables 2 and 3 is given in italics where the information has been obtained from sources other than the headquarters of the indicated organization.

2.—International Trade Unions Operating in Canada.

NUMBER OF BRANCHES AND NUMBER OF MEMBERS IN CANADA, DECEMBER, 1927.

International Organizations.	No. of branches in Canada.	Reported members in Canada.
American Federation of Labour	3	51
Asbestos Workers, International Association of Heat and Frost Insulators and	3	100
Bakery and Confectionery Workers' International Union of America	8	264
Barbers' International Union of America, Journeymen	35	1,496
Bill Posters and Billers of America, International Alliance of	3	300
Blacksmiths, Drop Forgers and Helpers, International Brotherhood of	21	1,500
Boilermakers, Iron Shipbuilders and Helpers, International Brotherhood of	35	1,795
Bookbinders, International Brotherhood of	12	531
Boot and Shoe Workers' Union	10	1,322
Brewery, Flour, Cereal and Soft Drink Workers, International Union of the United	15	616
Bricklayers, Masons and Plasterers' International Union of America	53	3,614
Bridge, Structural and Ornamental Iron Workers, International Association of	9	145
Carpenters and Joiners of America, United Brotherhood of	85	10,552
Carvers' Association of America, International Wood	1	18
Cigarmakers' International Union of America	7	549
Cloth Hat, Cap and Millinery Workers' International Union	4	250
Clothing Workers of America, Amalgamated	15	6,000
Commercial Telegraphers' Union of America	10	2,100
Conductors, Order of Sleeping Car	1	13
Coopers' International Union of North America	1	6

2.—International Trade Unions Operating in Canada—concluded.

International Organizations.	No. of branches in Canada.	Reported members in Canada.
Electrical Workers, International Brotherhood of	36	2,300
Elevator Constructors, International Union of	2	102
Expressmen, Order of Railway	2	55
Federal Employees, National Federation of	1	*61*
Firemen and Oilers, International Brotherhood of	30	1,094
Fire Fighters, International Association of	21	2,490
Fur Workers' Union, International	7	500
Garment Workers of America, United	10	1,578
Garment Workers' Union, International Ladies'	*9*	*1,200*
Glass Bottle Blowers' Association of the United States and Canada	4	145
Glass Workers' Union, American Flint	3	122
Glove Workers' Union, International	–	12
Granite Cutters' International Association of America	4	150
Hod Carriers, Building and Common Labourers' Union of America, International	7	425
Hotel and Restaurant Employees' International Alliance and Bartenders' International League of America	13	1,363
Iron, Steel and Tin Workers of North America Amal. Assn	1	62
Jewelry Workers' Union, International	*1*	32
Lathers, International Union of Wood, Wire and Metal	8	162
Leather Workers' International Union, United	2	96
Lithographers of America, Amalgamated	7	*422*
Locomotive Engineers, Brotherhood of	103	6,086
Locomotive Firemen and Enginemen, Brotherhood of	104	7,062
Longshoremen's Association, International	15	5,000
Machinists, International Association of	85	15,000
Maintenance-of-Way Employees, Brotherhood of	189	*6,763*
Marble, Stone and Slate Polishers, Rubbers and Sawyers, Tile and Marble Setters' Helpers and Terrazzo Workers' Helpers, International Association of	1	61
Metal Polishers' International Union	2	85
Metal Workers' International Association, Sheet	20	850
Mine Workers of America, United	40	15,400
Moulders' Union of North America, International	34	1,900
Musicians, American Federation of	40	8,000
Painters, Decorators and Paperhangers of America, Brotherhood of	32	1,681
Papermakers, International Brotherhood of	24	1,390
Pattern Makers' League of North America	13	474
Paving Cutters' Union of the United States and Canada	5	125
Photo Engravers' Union of North America, International	5	367
Piano, Organ and Musical Instrument Workers' International Union	1	12
Plasterers' and Cement Finishers' International Association, Operative	16	720
Plumbers, Gas and Steam Fitters, United Association of Journeymen	32	1,500
Printers, Die Stampers' and Engravers' Union, International Plate	1	43
Printing Pressmen and Assistants' Union, International	18	2,000
Pulp, Sulphite and Paper Mill Workers of the United States and Canada, International Brotherhood of	17	2,078
Quarry Workers' International Union of North America	2	450
Railroad Signalmen of America, Brotherhood of	8	200
Railroad Telegraphers, Order of	13	7,984
Railroad Trainmen, Brotherhood of	96	14,629
Railway Carmen of America, Brotherhood of	114	12,967
Railway and Steamship Clerks, Freight Handlers, Express and Station Employees, Brotherhood of	54	3,164
Railway Conductors, Order of	73	3,500
Railway Employees of America, Amalgamated Association of Street and Electric	25	7,500
Retail Clerks' International Protective Association	4	*100*
Seamen's Union of America, International	1	250
Siderographers, International Association of	1	10
Stage Employees, International Alliance of Theatrical	34	600
Steam and Operating Engineers, International Union of	32	1,998
Stereotypers and Electrotypers' Union, International	10	282
Stonecutters' Association of North America, Journeymen	16	500
Switchmen's Union of North America	8	150
Tailors' Union of America, Journeymen	13	366
Teamsters, Chauffeurs, Stablemen and Helpers, International Brotherhood of	10	1,200
Textile Workers of America, United	2	*65*
Train Dispatchers' Assn., America	–	15
Typographical Union, International	50	4,364
Upholsterers' International Union of America	7	331
Wall Paper Crafts of North America, United	–	1
Totals	1,869	180,755
One Big Union	50	19,245
Industrial Workers of the World	7	4,400
Grand Total	**1,926**	**204,400**

Table 3 gives the number of branches and of members of Canadian Central Labour Bodies operating in Canada at the close of 1927.

3.—Canadian Central Labour Bodies Operating in Canada.

NUMBER OF BRANCHES AND NUMBER OF MEMBERS, DECEMBER, 1927.

Organizations.	No. of branches or affiliations.	Members reported.
Trades and Labour Congress of Canada	46	6,405
All-Canadian Congress of Labour	16	858
Amalgamated Carpenters of Canada	16	1,693
Amalgamated Civil Servants of Canada	23	3,200
Brotherhood of Canadian Pacific Express Employees	26	1,550
Canadian Brotherhood of Railroad Employees	181	15,670
Canadian Brotherhood of Stationary Engineers	–	158
Canadian Association of Railway Enginemen	28	612
Canadian Carpet Weavers' Beneficial Association	4	136
Canadian Electrical Trades Union	9	1,107
Canadian Federation of Bricklayers, Masons, Plasterers and Other Building Trades	5	546
Canadian Theatrical Arts and Crafts	–	54
Civil Service Association of Alberta	12	667
Dominion Postal Clerks' Association	27	1,549
Dominion Mail Porters and Chauffeurs' Association	6	760
Dominion Railway Mail Clerks' Federation	15	985
Electrical Communications Workers of Canada	6	1,074
Federated Association of Letter Carriers	37	1,769
Federated Seafarers' Union of Canada	3	1,500
Great Lakes' Seamen's Assn. of Canada	2	612
Lumber Workers' Industrial Union of Canada	13	1,200
Mine Workers' Union of Canada	20	4,067
National Association of Marine Engineers	14	1,139
National Union of Painters, Decorators and Paperhangers of Canada	1	197
Provincial Federation of Ontario Fire Fighters	24	842
Saskatchewan Brotherhood of Steam and Operating Engineers	3	75
Totals	**537**	**48,435**

Section 6.—Fatal Industrial Accidents.

Statistics of fatal industrial accidents have been compiled by the Dominion Department of Labour since 1903, the data being obtained from provincial Workmen's Compensation Boards, the Board of Railway Commissioners for Canada and various other governmental authorities, from certain large employers of labour, from departmental correspondents and from press clippings. Table 4 shows the number of fatal industrial accidents reported to the Department during each year from 1923 to 1927 inclusive. The number of fatalities in each of the different industries is also shown as a percentage of the total number.

4.—Fatal Industrial Accidents in Canada, by Industries, 1923-27.

Industries.	Number of Accidents.					Per cent of Total Accidents.				
	1923.	1924.	1925.	1926.	1927.	1923.	1924.	1925.	1926.	1927.
Agriculture	129	93	93	151	162	9·1	7·3	9·0	11·6	11·7
Logging	195	215	139	126	155	13·8	16·9	13·3	9·7	11·2
Fishing and trapping	29	33	13	71	125	2·1	2·6	1·2	5·5	9·1
Mining, non-ferrous smelting and quarrying	187	170	166	154	165	13·3	13·2	15·9	11·8	12·0
Manufacturing	198	164	161	184	151	14·0	12·7	15·4	14·1	11·0
Construction	177	198	130	159	183	12·5	15·5	12·4	12·2	13·3
Transportation and public utilities	372	312	257	351	314	26·4	24·3	24·6	26·9	22·8
Trade	24	13	11	26	26	1·7	1·0	1·1	2·0	1·9
Service	61	27	21	68	95	4·3	2·1	2·0	5·2	6·9
Miscellaneous	40	56	53	13	1	2·8	4·4	5·1	1·0	0·1
Total All Industries	**1,412**	**1,281**	**1,044**	**1,303**	**1,378**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**

The greatest number of fatalities in this period was recorded in 1923, with a total of 1,412, the number declining to 1,281 in 1924 and 1,044 in 1925 and advancing again to 1,303 in 1926 and to 1,378 in 1927. The numbers of fatalities in mining, etc., manufacturing and transportation and public utilities were largest in 1923, in logging and construction in 1924, in trade in 1926, while in the remaining groups, agriculture, fishing and trapping and service, the numbers were largest in 1927.

The classification of fatal industrial accidents during 1927, according to cause, showed the largest number (499) to be due to "moving trains, vehicles, etc.", of which number 173 were in connection with employment on water craft and 121 caused by persons being struck or run over by or crushed by or crushed by or between cars and engines. Derailments and collisions caused 55 deaths, automobiles and other power vehicles 64, and animal-drawn vehicles and implements, 35. Falls of persons caused the deaths of 203, of which 63 were due to falls into pits, shafts, harbours, rivers, etc., 58 to falls from elevations and 28 to collapse of support. Falling objects caused 154 fatalities, of which 67 were due to falling trees and limbs and 50 to objects falling in mines and quarries. There were 116 fatalities under the heading "dangerous substances", of which 35 were due to explosive substances, 28 to electric current and 21 to gas fumes, etc. Among other causes, 46 fatalities were owing to persons being struck by objects, 36 to handling heavy objects, 45 to cave-ins, landslides, ice jams, etc., and 45 to drowning with no particulars available. Other drowning accidents were classified under particular causes, being for the most part included under "water craft". Fifteen deaths were reported due to infection, though no particulars of the accident were reported, and 10 were due to industrial diseases.

Section 7.—Workmen's Compensation in Canada.

An account of the development of workmen's compensation legislation in Canada from employers' liability legislation was given at pp. 744-746 of the 1927-28 Year Book, while a summary of the present position with regard to workmen's compensation appears in the general sketch of labour legislation in Canada at p. 761 of the current edition. Details regarding the operation of the various Workmen's Compensation Boards of the provinces are given below.

Operations of the Workmen's Compensation Boards.—*Ontario.*—Under the system operated by the Ontario Workmen's Compensation Board in schedule 1, where the liability is collective, 24 classes of industries pay various percentages of their payroll annually to the Board and escape individual civil liability for accidents, the percentage of payroll collected by the Board being graded according to the degree of hazard in the occupation, ranging in 1927 from 10 cents per $100 of payroll in clothing manufacturing to $6.50 per $100 in caisson work, and averaging for all classes $1.17 per $100 of payrolls which amounted to $440,578,000. Certain other industries under schedule 2, including municipal undertakings, railways, car shops, telegraphs, telephones, etc., are made individually liable to pay the rates of compensation fixed under the Act. Employees of the Dominion or of the Province, killed or injured in the discharge of their duty, are by special legislation placed on the same footing as those of private employers of the second class.

Statistics of the benefits awarded and the accidents to workers reported during the first 14 years of the operation of the Act appear in Table 5. The 61,078 accidents *paid for* during the year 1927 included 355 cases of death, 18 of permanent total disability, 2,349 of permanent partial disability, 31,330 of temporary disability

and 27,026 in which medical aid only was provided. These latter are all under schedule 1, as medical aid in schedule 2 cases and Crown cases is furnished directly by the employer.

5.—Benefits awarded and Accidents reported by the Ontario Workmen's Compensation Board, 1915-1928.

Years.	Benefits Awarded.				Accidents Reported.			
	Schedule 1.		Schedule 2 and Crown Compensation.	Total Benefits.	Schedule 1.	Schedule 2.	Crown.	Totals.
	Compensation.	Medical Aid.						
	$	$	$	$	No.	No.	No.	No.
1915	692,389	[1]	200,932	893,321	13,878	3,144	11	17,033
1916	1,553,653	[1]	451,710	2,005,363	21,269	4,806	17	26,092
1917	2,286,955	83,514[2]	623,556	2,994,025	30,701	5,813	18	36,532
1918	2,751,137	369,346	763,511	3,883,995	40,662	7,113	73	47,848
1919	2,808,639	386,299	997,923	4,192,860	36,236	7,918	106	44,260
1920	5,113,150	703,706	1,963,390	7,780,245	46,177	7,222	1,452	54,851
1921	3,858,017	662,794	1,668,452	6,189,264	36,272	7,666	1,253	45,191
1922	3,417,102	692,820	1,582,975	5,692,897	42,139	7,124	1,148	50,411
1923	4,036,170	788,906	1,348,786	6,173,862	51,655	6,080	3,374	61,109
1924	4,052,288	835,956	1,234,576	6,122,820	49,558	4,916	4,201	58,675
1925	3,635,530	875,836	1,054,077	5,565,443	50,883	5,079	4,050	60,012
1926	3,664,040	988,487	1,168,825	5,821,352	57,032	4,942	3,942	65,916
1927	3,930,418	1,062,860	1,091,378	6,084,655	62,063	5,412	4,504	71,979
1928	4,565,689	1,166,508	1,335,751	7,067,948	69,011	5,815	4,572	79,398

[1]No provision for medical aid. [2]Half year only.

Nova Scotia.—The Workmen's Compensation Act was passed in 1915, but only became effective on Jan. 1, 1917. During the eleven years between that date and Dec. 31, 1927, accidents to the number of 74,041 were reported to the Board, of which 62,253 were compensated as per Table 6. Prior to Jan. 1, 1920, medical aid was only furnished in special cases.

6.—Compensation paid and Accidents compensated by the Nova Scotia Workmen's Compensation Board, 1917-1927.

Years.	Compensation paid.	Medical Aid.	Total.	Total Accidents compensated.
	$	$	$	No.
1917	766,343	202	766,545	4,836
1918	1,015,918	-	1,015,918	4,931
1919	722,461	491	722,952	4,949
1920	951,545	46,093	997,638	7,116
1921	736,709	35,512	772,221	4,903
1922	750,360	45,208	795,568	5,022
1923	1,061,824	65,492	1,127,316	6,248
1924	1,052,493	64,980	1,117,473	5,786
1925	766,766	66,193	832,959	5,340
1926	936,282	80,060	1,016,342	6,407
1927	1,139,839	88,515	1,228,354	6,715

New Brunswick.—The Workmen's Compensation Act of New Brunswick was passed in 1918. It extends to a wide range of industries, and is administered by a Board of three persons, levying assessments and paying benefits. For the sums paid out annually from 1920 as compensation and for medical aid see Table 7.

7.—Compensation paid by the New Brunswick Workmen's Compensation Board, 1920-1927.

Years.	Weekly Compensation.	Permanent Partial Disability.	Fatal.		Medical Aid.	
			Funeral Expenses.	Reserve for Pensions.	Doctor's Fees and Transportation.	Hospital and Nursing Services.
	$	$	$	$	$	$
1920	195,063	73,440	1,799	128,158	39,324	15,606
1921	159,096	103,054	3,661	188,945	56,631	22,378
1922	162,988	84,316	2,906	124,088	76,046	31,568
1923	204,353	95,349	3,573	130,339	83,530	35,935
1924	203,946	113,555	3,425	162,740	87,261	41,528
1925	186,946	90,044	2,784	144,285	84,897	38,920
1926	185,624	76,780	2,033	93,838	73,149	40,293
1927	211,692	103,430	2,427	88,299	79,481	43,994

Manitoba.—Under the Workmen's Compensation Act, which came into force Mar. 1, 1917, part one of the Act, dealing with workmen in hazardous occupations, is administered by The Workmen's Compensation Board, which charges insurance rates according to the hazard of the industry, the sums received by the workman being in lieu of the rights of action previously existing. The Province, the city of Winnipeg and certain corporations operating public utilities are permitted by the law to practise self-insurance.

From the date of the coming into force of the Act to Dec. 31, 1927, the Board dealt with 44,454 compensable accidents and paid out $6,569,978 for compensation and medical aid. Of the accidents in 1927, 4,125 involved temporary and 237 permanent disability, while 35 resulted in death (Table 8).

8.—Compensation paid and Accidents compensated by the Manitoba Workmen's Compensation Board, 1917-1927.

Years.	Compensation.	Medical Aid.	Total.	Accidents compensated.
	$	$	$	No.
1917	289,870	23,002	312,872	1,323
1918	304,135	35,121	339,256	1,731
1919	285,772	40,748	326,520	1,805
1920	389,710	78,566	468,276	2,509
1921	527,102	114,118	641,210	2,688
1922	585,292	156,734	742,026	4,977
1923	624,581	161,805	786,386	4,933
1924	476,722	155,166	631,888	4,972
1925	538,781	178,814	717,595	5,404
1926	599,144	190,023	789,167	7,046
1927	605,957	208,815	814,772	7,066

Alberta.—The Workmen's Compensation Act of 1918 became effective Aug. 1, 1918, as regards mining, and Jan. 1, 1919, in respect of almost all other industries except agriculture, railroading and the operation of retail stores and offices. Railroading (except for the running trades) was brought within the scope of the Act in 1919.

Table 9 shows the operations of the Board for the calendar years 1921 to 1927. Of the 10,149 accidents reported in the latter year 59 were fatal and 129 resulted in some permanent injury. The amounts shown below do not include sums trans-

ferred to the pension fund, which had assets amounting to $1,838,976 on Dec. 31, 1927, nor do they include administration expenses nor sums set aside to cover estimated liabilities.

9.—Compensation paid and Accidents compensated by the Alberta Workmen's Compensation Board, 1921-1927.

Year.	Compensation paid.	Medical Aid paid.	Total.	Accidents reported.	Accidents compensated.
	$	$	$	No.	No.
1921	253,669	113,433	367,102	7,069	3,566
1922	265,326	134,252	399,578	7,518	3,314
1923	323,369	161,732	485,101	9,160	4,268
1924	241,090	127,397	368,487	7,383	3,627
1925	312,990	154,870	467,860	8,355	4,099
1926	298,404	124,138	422,542	8,930	4,629
1927	371,787	161,537	533,324	10,149	5,547

British Columbia.—The Workmen's Compensation Act, effective Jan. 1, 1917, provided compulsory accident insurance in almost every industrial occupation carried on in the province, protecting in 1927 approximately 170,000 employees with a payroll of over $175,000,000. Insurance rates are graded according to the hazard of the industry. All employers under the Act are required to deduct one cent per day or per part thereof from the wages of employees and to remit this money to the Board to the credit of the medical aid fund, which provides all medical and surgical assistance and hospital expenses for injured employees. For statistics see Table **10.**

10.—Compensation paid and Accidents compensated by the British Columbia Workmen's Compensation Board, 1917-1927.

Years.	Compensation paid.	Medical Aid paid.	Total.	Claims (gross).
	$	$	$	No.
1917	603,274	62,668	665,942	13,685
1918	1,224,039	268,985	1,493,024	22,498
1919	1,394,696	289,108	1,683,804	18,185
1920	1,709,759	397,451	2,107,210	20,905
1921	1,771,126	431,748	2,202,874	16,883
1922	1,767,260	457,196	2,224,466	19,647
1923	2,157,918	514,762	2,672,680	24,184
1924	2,309,007	602,733	2,911,740	25,566
1925	2,419,372	618,942	3,038,314	27,563
1926	2,481,456	678,231	3,159,687	30,365
1927	2,654,200	643,594	3,297,794	30,066

Section 8.—Strikes and Lockouts.

Statistics of strikes and lockouts in Canada have been collected by the Dominion Department of Labour since its inception in 1900. Table **11** shows the number of disputes, the number of employees involved in disputes, and the time loss in working days for each year from 1901 to 1928, and the totals for the period. The items in the column headed "time loss in working days" in the tables following are calculated by multiplying the number of persons directly involved by strikes and lockouts by the number of working days they are so affected during the time

the disputes are in existence. The tables give the figures for previous years and a detailed analysis for 1927 and 1928.

Industrial Disputes in 1927 and 1928.—In each of the years 1926, 1927 and 1928 the time loss in "man working days" from strikes and lockouts was less than in any year since 1916 and less than in most of the years back to 1901, when the record was begun. This was chiefly because there were no coal-mining disputes involving large numbers of workers for relatively long periods of time. The number of strikes and lockouts in existence in 1928 was 101, as compared with 79 in 1927, slightly greater than in each year back to 1922, but the number of employees involved was 18,237 in 1928 and 22,683 in 1927, less than in any other year back to 1922, when the time lost was much greater. Table **11** shows the numbers of strikes and lockouts existing in each year and the number beginning in each year back to 1901, also the number of employees involved, with the time loss in man working days in each year.

11.—Record of Industrial Disputes, 1901-1928.

Years.	Number of Disputes		Disputes in existence in the year.	
	In existence in the year.	Beginning in the year.	Employees involved.	Time loss in working days.
1901	104	104	28,086	632,302
1902	121	121	12,264	120,940
1903	146	146	50,041	1,226,500
1904	99	99	16,482	265,004
1905	89	88	16,223	217,244
1906	141	141	26,050	359,797
1907	149	144	36,224	621,962
1908	68	65	25,293	708,285
1909	69	69	17,332	871,845
1910	84	82	21,280	718,635
1911	99	96	30,094	2,046,650
1912	150	148	40,511	1,099,208
1913	113	106	39,536	1,287,678
1914	44	40	8,678	430,054
1915	43	38	9,140	106,149
1916	75	74	21,157	208,277
1917	148	141	48,329	1,134,970
1918	196	191	68,489	763,341
1919	298	290	138,988	3,942,189
1920	285	272	52,150	886,754
1921	145	138	22,930	956,461
1922	85	70	41,050	1,975,296
1923	91	77	32,868	768,474
1924	73	63	32,494	1,770,825
1925	83	81	25,796	1,743,996
1926	77	73	24,142	296,811
1927	79	72	22,683	165,288
1928	101	97	18,239	238,132
Total	**3,255**[1]	**3,126**	**926,549**[1]	**25,563,076**

[1]In these totals, figures for disputes extending over the end of a year are counted more than once.

Table **12** is a record by months since 1923 and shows that the greatest time losses usually occur in the spring and summer months. In 1928 the greatest time loss occurred in May, owing chiefly to building trade strikes in Montreal, Toronto and Calgary.

12.—Monthly Record of Strikes and Lockouts, 1923-1928.

Months.	Disputes in existence.						Number of employees involved.					
	1923.	1924.	1925.	1926.	1927.	1928.	1923.	1924.	1925.	1926.	1927.	1928.
Jan.	18	13	12	11	9	10	2,852	14,294	731	823	283	517
Feb.	20	17	14	10	10	10	3,950	12,933	3,066	2,450	410	889
Mar.	19	13	15	14	10	13	1,533	827	11,891	1,032	543	1,095
April	27	16	13	14	14	16	2,561	8,667	12,149	924	1,973	1,813
May	39	14	19	15	21	20	4,767	7,955	13,240	4,018	5,669	3,415
June	28	26	23	15	20	21	6,268	12,293	14,761	2,881	2,081	4,027
July	23	19	21	18	15	19	18,095	8,701	13,458	11,891	3,317	3,333
Aug.	20	16	20	14	14	20	3,651	9,472	13,430	4,326	6,194	5,562
Sept.	18	9	14	14	13	11	1,729	7,687	1,297	2,347	2,016	1,433
Oct.	16	7	8	12	20	16	2,322	8,023	705	2,561	3,923	2,530
Nov.	15	3	11	13	16	16	2,237	353	3,925	1,133	1,933	1,840
Dec.	13	3	9	10	9	11	2,446	125	1,532	198	301	577
Year	**91**[1]	**73**[1]	**83**[1]	**77**[1]	**79**[1]	**101**[1]	**32,863**[1]	**32,494**[1]	**25,796**[1]	**24,142**[1]	**22,683**[1]	**27,031**[1]

Months.	Time loss in working days.					
	1923.	1924.	1925.	1926.	1927.	1928.
Jan.	53,966	209,834	5,526	9,769	4,085	8,029
Feb.	46,030	197,083	27,013	21,730	6,403	5,853
Mar.	33,229	11,087	249,100	14,269	7,248	7,806
April	34,972	199,968	297,949	8,773	14,478	22,037
May	53,891	202,710	307,229	59,591	27,765	39,317
June	42,406	214,790	320,594	35,769	15,060	25,336
July	307,433	210,736	331,976	49,058	12,585	22,672
Aug.	30,721	206,118	112,524	34,800	14,321	30,237
Sept.	30,773	183,723	20,553	20,922	9,231	9,849
Oct.	50,402	127,763	12,142	27,873	39,493	36,838
Nov.	55,978	5,148	38,187	9,892	9,455	20,893
Dec.	28,693	1,865	20,903	4,365	5,164	9,265
Year	**768,494**	**1,779,825**	**1,743,996**	**296,811**	**165,288**	**238,132**

[1]These figures relate only to the actual number of disputes in existence and the employees involved during the year, and are not a summation of the monthly figures.

Table 13 is a record of industrial disputes, by provinces, for the years 1927 and 1928. In 1927 the most serious time loss was in Ontario, disputes in the construction industries being the chief cause. In 1928 the greatest time loss was in Alberta owing to three strikes of coal miners.

13.—Strikes and Lockouts, by Provinces, Number of Workers Involved and Time Loss, 1927 and 1928.

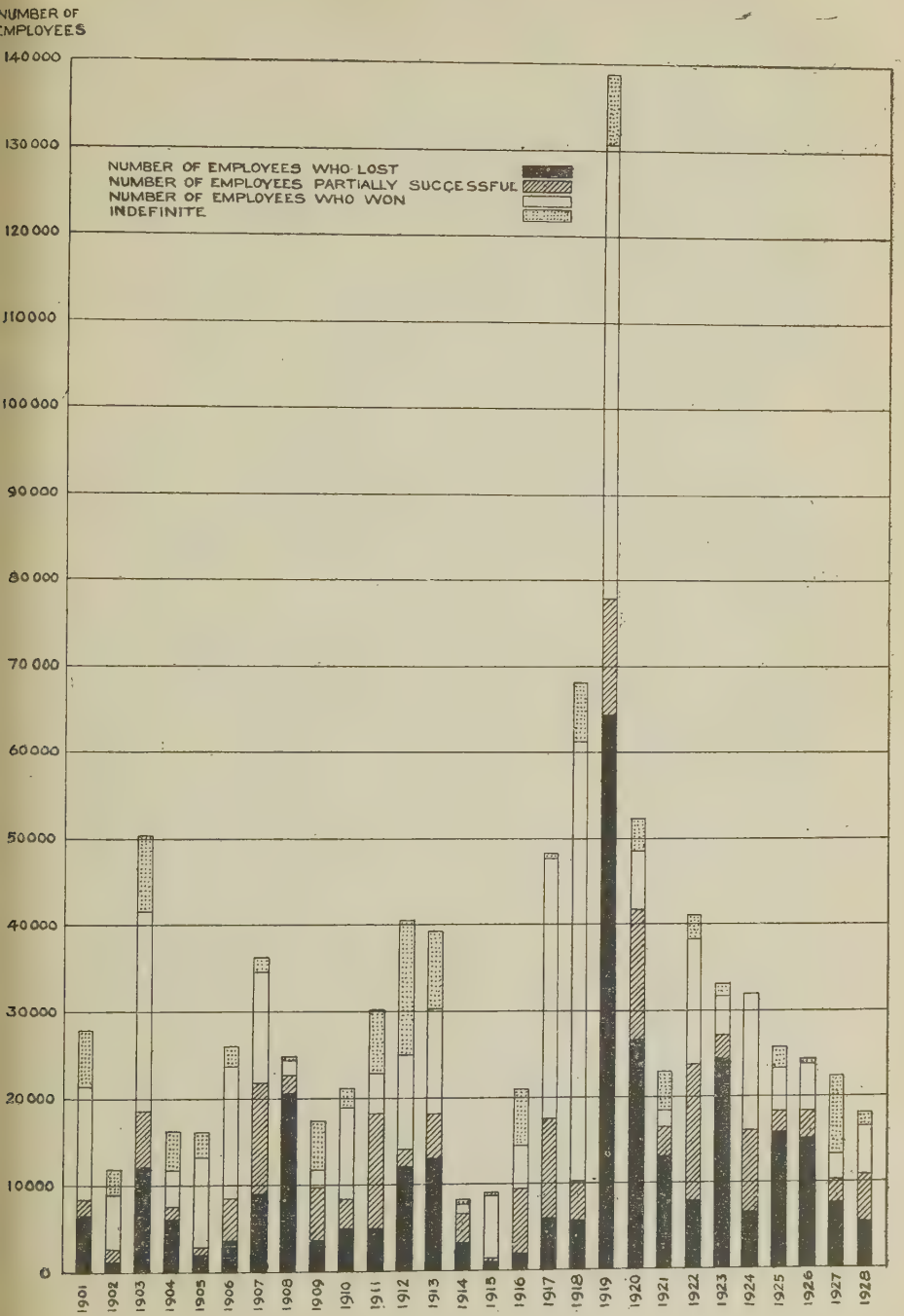
Provinces.	1927.				1928.			
	No. of disputes.	No. of workers involved.	Time loss.		No. of disputes.	No. of workers involved.	Time loss.	
			Working days.	P.c. of total.			Working days.	P.c. of total.
Nova Scotia	16	15,821	47,677	28·9	11	3,811	10,594	4·4
Prince Edward Island	1	100	400	0·2	–	–	–	–
New Brunswick	1	27	675	0·4	–	–	–	–
Quebec	14	1,051	45,766	27·7	14	3,644	34,120	14·3
Ontario	28	3,884	51,062	30·9	51	3,652	41,191	17·3
Manitoba	3	100	825	0·5	4	862	11,042	4·6
Saskatchewan	3	94	1,217	0·7	2	115	947	0·4
Alberta	5	765	6,371	3·9	10	2,743	87,057	36·6
British Columbia	8	841	11,295	6·8	8	2,662	30,506	12·8
Interprovincial	–	–	–	–	1	750	22,675	9·6
Total	**79**	**22,683**	**165,288**	**100·0**	**101**	**18,239**	**238,132**	**100·0**

Table **14** shows strikes and lockouts by industries during 1927 and 1928, the most important being in clothing and boot manufacturing and in building, with a number of smaller disputes in mining, the last involving an appreciable number of workers and considerable time loss, but not nearly as large a percentage of the total for the year as in previous years. Most of the disputes in clothing manufacturing in the past two years were in regard to the maintenance of union wages and working conditions. The most important strike during 1927, that of carpenters in Toronto, was for the closed union shop for the International Carpenters' Union, and a similar dispute occurred at Vancouver during 1928. A diagram showing the time loss in working days and by industries, from 1901 to 1927, appeared on page 697 of the 1926 Year Book.

14.—Strikes and Lockouts, by Industries, 1927 and 1928.

Industries.	1927.					1928.				
	Disputes.		Number involved.	Time loss.		Disputes.		Number involved.	Time loss.	
	Number.	Percent of total.	Workers.	Working days.	Percent of total.	Number.	Percent of total.	Workers.	Working days.	Percent of total.
Logging	2	2·5	770	4,500	2·7	5	4·9	1,006	12,562	5·3
Fishing and trapping	1	1·3	300	300	0·2	1	1·0	1,500	4,500	1·9
Mining, non-ferrous smelting and quarrying	20	25·3	16,580	54,048	32·8	14	13·8	5,578	86,921	36·5
Manufacturing—										
Vegetable foods	1	1·3	73	10,000	6·0	1	1·0	73	4,000	1·7
Rubber products	–	–	–	–	–	3	3·0	1,728	15,195	6·4
Boots and shoes (other than rubber and felt)	1	1·3	65	650	0·4	3	3·0	145	1,969	0·8
Fur and leather products (other than boots and shoes)	1	1·3	25	250	0·2	1	1·0	20	1,500	0·6
Textiles	–	–	–	–	–	1	1·0	159	318	0·1
Clothing, including knitted goods	16	20·2	679	24,122	14·6	26	25·7	2,486	16,036	6·7
Saw and planing mill products	–	–	–	–	–	1	1·0	50	1,100	0·5
Other wood products	1	1·3	18	240	0·1	1	1·0	55	225	0·3
Pulp and paper products	–	–	–	–	–	1	1·0	50	800	0·3
Printing and publishing	1	1·3	10	1,100	0·6	2	2·0	100	350	0·2
Iron, steel and products	2	2·5	62	1,600	1·0	5	4·9	684	2,790	1·2
Non-metallic mineral products	2	2·5	150	10,300	6·2	2	2·0	70	4,720	2·0
Construction—										
Buildings and structures	22	27·8	3,535	55,979	33·9	27	26·7	3,890	77,903	32·7
Canal, harbour and waterway	–	–	–	–	–	1	1·0	30	345	0·2
Highway and bridge construction	1	1·3	8	200	0·1	1	1·0	375	2,000	0·8
Transportation and Public Utilities—										
Water transportation	1	1·3	125	250	0·2	1	1·0	13	13	0·0
Local transportation	2	2·5	101	221	0·1	2	2·0	119	3,000	1·3
Miscellaneous	1	1·3	100	400	0·3	–	–	–	–	–
Service—										
Recreational	2	2·5	13	318	0·2	–	–	–	–	–
Custom and repair	–	–	–	–	–	1	1·0	90	735	0·3
Business and personal including domestic	2	2·5	69	810	0·4	1	1·0	18	550	0·2
Total	**79**	**100·0**	**22,683**	**165,288**	**100·0**	**101**	**100·0**	**18,239**	**238,152**	**100·0**

RESULTS OF STRIKES AND LOCKOUTS ACCORDING TO NUMBERS OF EMPLOYEES INVOLVED IN 1901-1928



Causes and Results of Industrial Disputes.—During 1927 and 1928, as in previous years, most of the disputes were in regard to wages, or wages and other working conditions, but also during these two years a large proportion of disputes (and these included some of the most important) were in regard to trade unionism, usually concerned with union wages and working conditions, including recognition of unions, closed shop, etc.

As in previous years many of the disputes during 1927 and 1928 were settled by negotiations; in 1928, out of a total of 93 disputes terminated during the year 39 settlements resulted from negotiations. An appreciable number of disputes terminated in the return of strikers or by their replacement, 34 being terminated in this manner in 1928.

The results of strikes and lockouts according to the number of employees involved in the years 1901 to 1928 are shown by the diagram on page 741. Details of strikes and lockouts in 1928 will be found in the Labour Gazette for February 1929, pp. 137-156.

Section 9.—Employment and Unemployment.

Subsection 1.—Operations of the Employment Service of Canada.

Employment Service of Canada.—Under sec. 3 of the Employment Offices Co-ordination Act (c. 57, R.S.C., 1927), an Act passed by the Dominion Parliament in May, 1918, to aid and encourage the organization and co-ordination of employment offices, the Minister of Labour is empowered:—

"(*a*) to aid and encourage the organization and co-ordination of employment offices and to promote uniformity of methods among them;

(*b*) to establish one or more clearing houses for the interchange of information between employment offices concerning the transfer of labour and other matters;

(*c*) to compile and distribute information received from employment offices and from other sources regarding prevailing conditions of employment".

The Act further provides that certain sums of money are to be appropriated annually and paid to the provinces on a basis proportionate to the amount that each expends on the maintenance of employment offices.

The desired uniformity and co-ordination of employment office activities throughout the various provinces are obtained by having the Dominion's payments contingent upon an agreement ensuring that the provinces, in the conduct of their employment offices, shall endeavour to fill situations in all trades and occupations for both men and women, and that no charge shall be made to employers or employees for this service. Each province agrees to maintain a provincial clearance system in co-operation with the interprovincial clearance system established by the Dominion Government, in order to secure the necessary mobility of labour as between localities in the same province or in different provinces. For the fiscal year 1928-29, agreements were concluded with all of the provinces except Prince Edward Island. Thus is formed the Employment Service of Canada—a chain of employment offices reaching from Halifax to Vancouver. At the time the Act came into force only 12 provincial employment offices were operated in Canada. This number was steadily increased until, at the close of 1919, due to the impetus given by the Employment Offices Co-ordination Act together with the requirements of the demobilization period, offices were functioning at 84 different centres. Subsequent contractions

have reduced the Service to offices permanently located at 64 centres (on Dec. 31, 1928), distributed by provinces as follows:—Nova Scotia, 3; New Brunswick, 3; Quebec, 5; Ontario, 25; Manitoba, 3; Saskatchewan, 9; Alberta, 5; and British Columbia, 11.

Employment Service Council of Canada.—An Order in Council, issued in 1918 in pursuance of the Act, provides for the formation of a body to be advisory to the Minister of Labour in the administration thereof. This body, known as the Employment Service Council of Canada, is composed of representatives of the Dominion Departments of Labour and Pensions and National Health, the Provincial Governments, the Canadian Manufacturers' Association, the Canadian Construction Association, the Trades and Labour Congress of Canada, the Railway Association of Canada, the Railway Brotherhoods, the Canadian Lumbermen's Association, the Canadian Council of Agriculture and the returned soldiers. At the nine annual meetings of the Council, the most recent of which was held on April 19-20, 1928, various recommendations and suggestions relative to employment office administration were brought forward and presented to the Minister.

Operations of Employment Offices.—Statistics covering the work of the local offices are collected and tabulated by the Employment Service Branch of the Department of Labour. Table **15** shows the positions available, applications for work and placements effected by the Service in each year since 1920. During 1928, there were 597,493 applications for employment, 506,426 vacancies and 470,328 placements, as compared with 553,871 applications, 453,573 vacancies and 414,769 placements in 1927. 1928 constituted a record year in respect of the number of placements effected, exceeding by nearly 2 p.c. the former record of 1923. Quebec was the only province to show a decline in the number of positions filled, the decrease there being only nominal. In addition, all industries except logging showed increased placements, the most noteworthy increases occurring in construction and maintenance, services, agriculture, and manufacturing. It will be noted that the placements made in British Columbia exceeded the vacancies listed at the local offices, owing to the large number of transfers of harvest workers to the Prairie Provinces.

The ratio of vacancies to applications was higher in 1928 than in 1927, as was also the ratio of placements to applications. For each 100 applicants registered during 1927 there were 81·9 vacancies and 74·9 placements, while there were 84·8 vacancies and 78·7 placements for each 100 applicants in 1928.

Reduced Railway Fares.—In order to facilitate the movement of labour in cases where there are not enough workers in any one locality to fill the available vacancies, the Employment Service, by special arrangement with nearly all the members of the Canadian Passenger Association, has been granted the privilege of issuing certificates which entitle the bearers to purchase railway fares at the reduced rate of 2·7 cents per mile. This rate is for a second class ticket and is applicable only to fares of not less than $4. During 1927, 42,009 certificates were issued, 22,706 to persons proceeding to points within the same province as the despatching office, and 19,303 to workers going to points in other provinces. Of the certificates issued, 7,318 were issued in British Columbia to persons proceeding to the Prairie Provinces to engage in harvesting operations; these travelled at harvesters' rates, which were cheaper than the 2·7 cents per mile rate. During 1928, 43,792 certificates for special rates were granted, 23,233 to persons travelling to employment within the same province as the despatching office, and 20,559 to persons for whom employment had been secured in other provinces; these included

9,032 certificates issued for the special harvest rate from British Columbia to the Prairie Provinces.

15.—Applications for Employment, Positions offered and Placements effected by the Employment Service of Canada, by Provinces, 1926-1928[1], and for Canada, 1920-1928.

Provinces.	Years.	Applications registered.		Vacancies notified.		Placements effected.	
		Men.	Women.	Men.	Women.	Men.	Women.
Nova Scotia	1926	5,326	3,539	4,998	3,547	4,699	2,922
	1927	4,420	4,236	4,290	4,089	3,978	3,560
	1928	4,319	4,268	4,183	4,277	3,994	3,629
New Brunswick	1926	6,934	4,335	5,873	4,307	5,563	4,236
	1927	4,756	4,210	4,434	4,198	4,179	4,129
	1928	4,972	4,677	4,662	4,703	4,565	4,631
Quebec	1926	39,861	7,982	23,148	6,767	20,509	4,801
	1927	42,155	8,790	21,704	7,621	21,129	5,549
	1928	40,770	9,643	19,997	8,086	19,910	6,208
Ontario	1926	138,693	54,830	115,551	44,581	104,447	33,152
	1927	139,400	58,628	111,096	46,153	100,704	34,165
	1928	151,774	60,432	124,935	51,495	116,714	38,435
Manitoba	1926	43,149	24,781	32,456	22,874	35,290	21,423
	1927	44,945	24,696	30,612	22,610	35,165	21,419
	1928	45,817	27,830	35,632	26,225	36,556	24,982
Saskatchewan	1926	59,364	8,529	75,478	10,616	58,016	7,526
	1927	64,221	10,107	76,962	11,206	62,974	9,130
	1928	76,769	13,480	85,539	14,173	74,958	12,198
Alberta	1926	58,690	8,926	53,076	9,197	50,287	7,223
	1927	62,794	9,174	61.745	9,321	57,219	7,625
	1928	66,471	10,452	65,382	11,278	60,514	8,995
British Columbia	1926	65,948	11,582	34,583	9,880	40,747	9,314
	1927	59,331	12,008	28,635	8,897	34,958	8,878
	1928	63,633	12,186	36,461	9,398	44,731	9,309
Canada	1920	480,735	98,054	450,526	116,142	365,292	80,520
	1921	438,836	105,593	325,498	106,097	277,792	77,964
	1922	443,875	104,407	365,529	104,359	316,386	77,136
	1923	473,483	115,692	431,576	109,404	376,801	85,751
	1924	402,593	116,782	314,258	97,810	285,359	80,773
	1925	439,022	118,023	345,570	101,473	328,334	84,491
	1926	417,965	124,504	345,163	111,769	319,558	90,597
	1927	422,022	131,849	339,478	114,095	320,306	94,463
	1928	454,525	142,968	376,791	129,635	361,942	108,386

[1]Figures by provinces and years for 1920 to 1925 will be found at p. 703 of the 1926 Year Book.

Subsection 2.—Unemployment as Reported by Trade Unions.

Monthly statistics on unemployment are compiled and published by the Employment Service Branch of the Dominion Department of Labour, based on returns received from 1,600 local trade unions having an aggregate membership of 175,000 workers. "Unemployment" as here used means involuntary idleness, due to economic causes. Persons engaged in work other than their own trades or idle because of illness are not considered as unemployed, while unions involved in industrial disputes are excluded from the tabulations. As the number of unions making returns varies from month to month, with consequent variation in the membership upon which the percentages of unemployment are based, it should be understood that the figures for each month have reference only to the reporting organizations. Table

16 is a record of unemployment in trade unions for the past 14 years, by provinces. The maximum of unemployment in 1928 was in February, when the percentage stood at 7·0; in 1927, the December figure of 6·6 p.c. constituted the maximum. In 1928 the minimum, reached in September, was 2·2 p.c., while the minimum for 1927 was 3·1 p.c., likewise in September. Employment among organized workers, as indicated by these statistics, was more active on the average in 1928 than in 1927, the average of the monthly figures of unemployment for 1928 being 4·5 p.c., while for 1927 the corresponding figure was 4·9 p.c.

16.—Percentages of Unemployment in Trade Unions, by Provinces, 1915-1928.

NOTE.—For the percentages of unemployment for 12 months in 1921 and 1922, see p. 732 of the 1922-23 Year Book; for 12 months in 1923, see p. 688 of the 1924 Year Book; for 12 months in 1924, see page 700 of the 1925 Year Book, for 12 months in 1925, see p. 704 of the 1926 Year Book and for 12 months in 1926, p. 757 of the 1927-28 Year Book.

Months.	Years.	Nova Scotia and P.E.I.	New Brunswick.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Canada.
Dec.	1915	·2	·7	9·5	8·1	3·2	7·0	4·3	14·8	7·9
June	1916	·5	·9	1·8	1·7	1·2	2·6	3·0	5·8	2·1
Dec.	1916	·3	·2	3·7	1·6	1·0	1·6	1·7	2·4	2·0
June	1917	·3	·2	2·5	·9	·6	·3	·8	1·8	1·2
Dec.	1917	2·6	4·1	3·2	2·5	1·1	2·4	1·6	3·2	2·5
June	1918	·2	·3	·5	·4	·3	·2	·4	·9	·4
Dec.	1918	2·0	·4	2·2	2·9	1·3	2·2	2·1	4·0	2·5
June	1919	2·7	2·4	4·0	1·8	1·2	2·5	1·7	3·4	2·6
Dec.	1919	1·5	2·0	3·2	1·9	5·0	6·0	2·8	18·6	4·3
June	1920	·6	·4	3·1	1·6	1·4	2·2	1·2	5·8	2·1
Dec.	1920	6·9	11·0	19·6	12·3	7·8	10·1	9·2	11·6	13·1
June	1921	14·3	11·7	20·7	6·7	8·0	6·8	9·4	24·4	13·2
Dec.	1921	5·9	6·9	26·8	9·7	15·5	10·4	6·8	24·7	15·1
June	1922	7·2	3·5	5·4	3·9	6·7	5·0	7·1	7·1	5·3
Dec.	1922	3·2	6·1	7·8	4·7	7·8	4·1	5·1	13·3	6·4
June	1923	2·2	1·0	5·7	1·6	5·6	1·3	4·5	4·0	3·4
Dec.	1923	7·3	3·6	9·7	6·4	6·5	4·2	6·0	7·1	7·2
June	1924	6·4	5·2	9·4	4·9	4·9	2·3	3·7	2·2	5·8
Dec.	1924	4·7	6·9	22·4	8·1	8·9	4·2	5·0	10·2	11·6
June	1925	3·4	3·4	10·2	3·8	4·3	2·4	10·8	4·1	6·1
Dec.	1925	4·3	3·0	14·2	6·4	3·8	3·5	4·4	6·9	7·9
June	1926	3·8	1·6	8·9	1·9	2·6	·8	4·9	2·6	4·1
Dec.	1926	3·2	2·2	7·6	5·6	4·3	2·1	6·7	7·5	5·9
Jan.	1927	3·0	3·4	7·8	6·8	6·3	6·1	4·0	6·9	6·4
Feb.	1927	3·8	2·3	7·2	7·2	8·1	5·3	4·2	7·4	6·5
Mar.	1927	13·1	1·6	6·5	4·9	5·6	4·1	4·4	4·4	5·7
April	1927	5·5	2·7	9·3	4·0	6·2	5·1	7·2	3·6	6·0
May	1927	5·8	1·9	8·8	3·1	3·7	1·7	6·5	3·9	5·2
June	1927	1·8	2·3	4·0	3·1	2·6	1·1	4·6	2·7	3·2
July	1927	1·2	2·3	5·2	2·7	2·3	1·5	1·8	4·0	3·3
Aug.	1927	1·5	1·2	5·4	3·1	2·3	·9	3·5	4·7	3·7
Sept.	1927	1·4	1·1	4·8	2·2	2·4	2·1	1·4	4·1	3·1
Oct.	1927	1·1	·9	5·6	3·2	4·2	1·8	4·4	4·9	3·9
Nov.	1927	2·5	1·7	7·8	3·5	5·1	3·4	4·6	8·0	5·2
Dec.	1927	4·3	1·5	9·3	5·1	5·4	5·6	3·7	10·5	6·6
Jan.	1928	5·5	1·5	7·9	7·0	6·3	5·0	4·4	9·1	6·8
Feb.	1928	9·0	1·7	9·1	5·6	7·3	6·0	4·4	8·0	7·0
Mar.	1928	10·9	2·3	7·0	5·8	7·5	7·5	5·5	5·0	6·5
April	1928	7·4	1·8	6·2	4·1	5·2	4·2	6·8	3·3	5·2
May	1928	5·6	1·5	4·8	2·7	2·9	3·0	4·3	3·0	3·7
June	1928	·5	·8	5·6	2·4	2·1	1·1	3·3	3·6	3·2
July	1928	1·5	·7	2·6	2·6	1·8	·6	4·5	2·8	2·5
Aug.	1928	1·6	·7	4·0	1·9	1·4	·8	1·2	2·8	2·4
Sept.	1928	·9	·5	3·5	1·2	1·2	·6	4·2	3·3	2·2
Oct.	1928	1·1	1·0	5·7	1·8	1·7	1·5	1·4	5·8	3·1
Nov.	1928	1·1	1·1	6·3	2·8	5·4	1·4	2·9	7·8	4·2
Dec.	1928	3·9	·9	10·7	4·0	8·1	4·4	6·9	6·9	6·6

Subsection 3.—Employment as Reported by Employers.

Payroll data on employment are obtained and issued each month by the Dominion Bureau of Statistics from employers of 15 persons and over; during 1928, some 6,400 of these firms, representing practically every industry except agriculture and the more specialized business and professional callings, made monthly returns covering an average staff of 928,580 workers. The payrolls varied from approximately 827,000 on Jan. 1 to 1,003,000 at the beginning of August. The movements of monthly employment in the years 1926 to 1928 are shown in Table 17. This depicts the favourable trend indicated during the greater part of 1928, employment having advanced almost uninterruptedly from early in January to the beginning of August. The curve in each month from Jan. 1 was higher than in the corresponding months of the years, 1921-27. The index, at its peak of 119·3 on Aug. 1, was over eight points higher than on Sept. 1, 1927, when activity was greater than in any previous month of the record. These indexes[1] have been recalculated upon the new base for the employment series—the average for the calendar year 1926 as 100. Although the usual seasonal curtailment was indicated at the close of the year, the situation on Dec. 1, 1928, was decidedly more favourable than in any month of the seven preceding years.

Employment by Economic Areas.—An analysis of the returns shows that the Prairie Provinces and Ontario recorded the greatest improvement over 1927, and the indexes of employment were higher in those areas than elsewhere. The gains in employment between Jan. 1 and the month in which activity was highest varied from 16·5 points in Quebec to 30·7 points in the Prairie Provinces. Table 17 is a record of employment in the five economic areas, as reported monthly by employers.

17. Index Numbers of Employment as reported by Employers, by Economic Areas, as at the first of each month, January, 1926, to December, 1928, with yearly averages since 1921.

NOTE.—These indexes are recalculated upon the average for the calendar year, 1926, as 100. The relative weight shows the proportion of employees reported in the indicated economic area to the total reported by all employers making returns in Canada on Dec. 1, 1928.

Year and months.	Maritime Provinces.	Quebec	Ontario.	Prairie Provinces.	British Columbia.	Canada.
1921—**Average**	102·4	82·2	90·6	94·0	81·1	88·8
1922—**Average**	97·3	81·4	92·8	92·6	82·8	89·6
1923—**Average**	105·7	90·7	96·5	94·8	87·4	95·8
1924—**Average**	96·6	91·3	95·5	92·1	89·4	93·4
1925—**Average**	97·0	91·7	94·8	92·0	93·7	93·6
1926.						
Jan. 1	94·7	86·5	91·9	94·4	89·2	90·7
Feb. 1	95·5	88·3	93·8	90·1	91·9	91·8
Mar. 1	99·6	89·6	95·0	88·0	91·6	92·6
April 1	95·0	91·2	93·7	87·6	96·1	92·8
May 1	94·1	94·4	96·3	91·8	100·7	95·4
June 1	98·7	103·7	101·4	102·8	103·5	102·2
July 1	102·2	107·5	103·3	106·5	104·8	105·0
Aug. 1	106·1	108·2	103·0	105·8	107·2	105·5
Sept. 1	108·5	107·8	104·3	106·2	108·1	106·2
Oct 1	105·8	107·8	105·1	109·2	105·8	106·8
Nov. 1	97·2	105·4	103·7	106·9	102·9	104·0
Dec. 1	95·5	102·7	103·1	104·7	100·0	102·3
Average[2]	99·4	99·4	99·6	99·5	100·2	99·6

[1]Indexes have been recalculated upon the new base by months since 1921 for the economic areas and main industrial groups, and for the leading cities since 1922, no earlier figures being available. Those desiring data in greater detail than is here published, may obtain the information upon application to the Dominion Bureau of Statistics.

[2]The average for the calendar year 1926, including figures up to Dec. 31, 1926, being the base used in computing these indexes, the average index here given for the 12 months Jan. 1–Dec. 1, 1926, generally shows a slight variation from 100.

17.—Index Numbers of Employment as reported by Employers, by Economic Areas, as at the first of each month, January, 1926, to December, 1928, with yearly averages since 1921—concluded.

Year and months.	Maritime Provinces.	Quebec.	Ontario.	Prairie Provinces.	British Columbia.	Canada.
1927.						
Jan. 1	101·8	93·6	96·8	99·9	87·7	95·9
Feb. 1	98·3	95·3	98·3	96·4	90·8	96·6
Mar. 1	97·4	96·2	100·1	95·2	93·0	97·5
April 1	97·8	94·6	100·4	94·1	95·1	97·4
May 1	100·5	100·6	104·5	99·0	99·4	101·8
June 1	103·5	107·5	108·1	106·5	105·5	107·2
July 1	112·8	109·6	108·9	110·7	109·1	109·7
Aug. 1	113·2	109·8	109·2	114·0	110·0	110·5
Sept. 1	112·2	110·5	110·5	114·4	108·7	111·0
Oct. 1	108·1	110·0	111·1	111·7	107·8	110·3
Nov. 1	100·1	110·2	109·8	110·7	104·2	108·8
Dec. 1	99·1	110·1	109·1	110·8	101·0	108·1
Average	**103·7**	**104·0**	**105·6**	**105·3**	**101·1**	**104·6**
1928.						
Jan. 1	97·1	99·6	101·9	107·5	91·4	100·7
Feb. 1	97·0	101·6	104·9	103·2	93·5	102·0
Mar 1	97·5	100·9	106·3	101·8	97·0	102·6
April 1	98·5	99·2	106·0	101·9	100·0	102·3
May 1	101·3	103·0	110·1	108·5	105·4	106·8
June 1	107·2	110·7	115·5	121·5	109·9	113·8
July 1	116·2	113·6	117·7	129·8	114·0	117·7
Aug 1	117·0	114·1	119·6	132·5	116·4	119·3
Sept. 1	115·4	115·7	120·1	127·8	115·5	119·1
Oct. 1	114·9	114·3	121·2	126·4	114·0	118·8
Nov. 1	109·5	114·8	121·8	128·6	112·1	118·9
Dec. 1	108·1	112·6	120·5	125·3	107·9	116·7
Average	**106·6**	**108·3**	**113·8**	**117·9**	**106·4**	**111·6**
Relative weight of employment by economic areas as at Dec. 1, 1928	7·3	27·7	42·2	14·4	8·4	100·0

Employment by Cities.—Separate tabulations are made for eight leading industrial cities—Montreal, Quebec, Toronto, Ottawa, Hamilton, Windsor and the adjacent Border Cities, Winnipeg and Vancouver in Table 18. Considerable increases were shown in all of these in 1928 as compared with 1927. Manufacturing, which employed a large share of the workers reported in these cities, was much more active, as was trade, while construction generally indicated marked gains. Employment in Windsor and the adjoining Border Cities was extremely active following the curtailment of production in a large automobile plant which had greatly affected the situation during most of 1927; the average index gained over 50 points during 1928. Important though less pronounced advances were also indicated in Toronto, where the average index showed an increase of 6·4 points over 1927, and of over 12 p.c. as compared with 1926. In Winnipeg, the index averaged six points higher than in the preceding year; in Ottawa, it was 7·9 points higher, and in Montreal, 5·2 points higher than in 1927.

18.—Index Numbers of Employment as reported by Employers, by Leading Cities as at the first of each month, January, 1926 to December, 1928, with yearly averages since 1922.

NOTE.—These indexes are recalculated upon the average for the calendar year 1926 as 100. The relative weight shows the proportion of employees reported in the indicated city to the total reported by all employers making returns in Canada on Dec. 1, 1928.

Years and Months	Montreal.	Quebec.	Toronto.	Ottawa.	Hamilton.	Windsor[2].	Winnipeg.	Vancouver
1922—Average	**86·0**	–	**96·1**	–	–	–	**93·9**	**81**
1923—Average	**92·7**	–	**98·0**	**107·2**	**94·6**	–	**90·6**	**82**
1924—Average	**93·0**	**99·6**	**94·3**	**102·3**	**86·0**	–	**86·5**	**86**
1925—Average	**94·2**	**97·9**	**95·7**	**100·1**	**88·0**	**85·1**	**88·5**	**92**
1926.								
Jan. 1	89·2	90·9	95·1	93·4	89·5	56·9	91·4	91
Feb. 1	89·5	91·6	95·6	92·7	91·5	95·7	91·9	94
Mar. 1	90·8	93·3	96·2	90·8	93·1	100·1	92·9	93
April 1	94·3	96·0	96·9	92·1	95·1	102·4	92·8	97
May 1	97·2	101·5	99·2	97·5	98·9	108·1	94·9	101
June 1	104·5	90·3	99·7	105·9	101·1	111·1	99·2	99
July 1	105·9	102·7	100·2	107·8	102·7	109·9	100·6	98
Aug. 1	106·2	105·4	100·6	105·8	104·0	107·3	101·0	107
Sept. 1	106·0	104·6	102·0	105·0	105·6	108·8	104·0	107
Oct. 1	105·7	106·3	102·9	106·0	104·9	103·3	107·4	103
Nov. 1	104·7	104·3	103·4	103·6	103·6	96·8	106·1	101
Dec. 1	101·9	102·3	103·8	99·9	101·7	98·7	107·9	101
Average[1]	**99·7**	**99·1**	**99·6**	**100·0**	**99·3**	**99·9**	**99·2**	**99**
1927.								
Jan. 1	93·7	102·0	99·7	93·0	98·0	57·5	101·6	92
Feb. 1	94·5	98·3	99·3	95·0	98·0	96·4	99·8	96
Mar. 1	95·8	99·9	99·6	96·0	99·1	102·4	99·4	99
April 1	98·0	102·6	102·5	98·1	101·4	77·1	98·6	99
May 1	101·9	105·3	105·3	108·5	102·5	99·1	99·5	101
June 1	104·5	110·9	107·0	111·5	105·5	98·5	101·3	103
July 1	106·3	114·0	107·7	115·2	105·1	82·7	104·4	106
Aug. 1	106·2	116·7	107·8	117·7	107·1	85·8	106·0	104
Sept. 1	107·8	119·9	109·3	117·7	103·3	86·2	109·9	102
Oct. 1	108·6	121·8	110·2	117·8	103·5	83·0	108·7	103
Nov. 1	109·4	123·9	109·5	113·1	106·3	81·4	108·2	99
Dec. 1	108·7	119·9	110·5	108·3	107·3	84·2	111·5	98
Average	**103·0**	**111·3**	**105·7**	**107·7**	**103·1**	**86·2**	**104·1**	**100**
1928.								
Jan. 1	98·6	109·3	105·1	105·1	96·8	83·1	109·2	94
Feb. 1	100·3	110·9	105·4	105·6	102·7	88·8	102·1	95
Mar. 1	101·0	103·3	106·4	105·2	101·7	103·4	101·9	99
April 1	101·8	107·9	107·7	105·6	103·0	124·9	103·9	100
May 1	105·9	112·0	110·2	120·8	104·8	136·4	108·7	104
June 1	109·7	117·0	112·7	118·4	109·0	147·3	110·7	107
July 1	110·4	131·6	112·8	123·0	109·0	150·2	110·9	107
Aug. 1	112·1	130·2	113·6	126·1	111·8	165·0	111·2	111
Sept. 1	115·7	132·7	114·3	124·9	113·7	175·5	115·0	111
Oct. 1	114·3	131·0	117·0	119·8	112·7	174·8	115·8	110
Nov. 1	115·1	126·6	119·3	120·2	115·7	155·9	115·4	106
Dec. 1	113·0	122·1	120·5	115·1	118·0	142·5	116·8	102
Average	**108·2**	**119·9**	**112·1**	**115·8**	**108·2**	**137·3**	**110·1**	**104**
Relative weight of employment by cities as at Dec. 1, 1928[3]	13·4	1·1	12·3	1·2	3·5	1·8	3·4	2

[1]The average for the calendar year 1926, including figures up to Dec. 31, 1926, being the base used in computing these indexes, the average index here shown for the 12 months, Jan. 1–Dec. 1, 1926, generally shows a slight variation from 100.

[2]Includes adjacent "Border Cities".

[3]Percentages of Dominion total.

Employment by Industries.—Employment in manufacturing registered steady advances, activity being greater than in any other year of the record. The iron and steel industries showed especially pronounced improvement, but that in pulp and paper, rubber, food and some other groups was also noteworthy. The volume of employment in transportation, mining, logging, services, communications

construction and trade was also considerably higher than in preceding years. Table 19 gives index numbers of employment by main industrial groups.

19.—Index Numbers of Employment as reported by Employers, by Industries, as at the first of each month, January, 1926, to December, 1928, with yearly averages since 1921.

NOTE.—These indexes are recalculated upon the averages for the calendar year 1926 as 100. The relative weight shows the proportion of employees reported in the indicated industry to the total reported by all employers making returns in Canada on Dec. 1, 1928.

Years and Months.	Manufacturing.	Logging.	Mining.	Communications.	Transportation.	Construction and Maintenance.	Services.	Trade.	All Industries.
1921.									
Average	**87·7**	**103·0**	**98·0**	**90·2**	**94·1**	**71·1**	**83·6**	**92·7**	**88·8**
1922.									
Average	**88·3**	**85·1**	**99·5**	**86·4**	**97·8**	**76·7**	**81·9**	**90·8**	**89·0**
1923.									
Average	**96·6**	**114·2**	**106·2**	**87·6**	**100·3**	**80·9**	**87·9**	**92·1**	**95·8**
1924.									
Average	**92·4**	**116·7**	**105·3**	**93·7**	**99·1**	**80·3**	**93·8**	**92·5**	**93·4**
1925.									
Average	**93·0**	**105·4**	**99·8**	**95·5**	**96·6**	**84·9**	**95·4**	**95·1**	**93·6**
1926.									
Jan. 1	90·0	129·2	100·9	95·6	95·9	63·4	90·1	101·3	90·7
Feb. 1	93·0	145·5	98·4	95·1	93·4	61·0	90·1	97·4	91·8
Mar. 1	94·9	139·0	93·0	94·7	92·3	65·6	93·0	95·8	92·6
April 1	96·6	79·2	92·5	95·0	93·4	69·8	94·2	95·4	92·5
May 1	98·8	72·7	93·0	99·5	94·9	82·6	95·7	96·3	95·4
June 1	101·6	96·4	96·5	100·4	102·1	114·5	100·9	96·7	102·2
July 1	103·1	80·0	99·8	101·5	102·9	133·0	105·3	97·6	105·0
Aug. 1	103·6	63·2	99·8	102·7	103·0	137·1	111·8	98·2	105·5
Sept. 1	104·8	66·8	101·7	103·2	104·7	133·5	110·4	98·1	106·2
Oct. 1	104·6	82·9	105·0	103·4	107·4	126·9	105·8	101·0	106·5
Nov. 1	102·7	99·6	106·5	102·2	105·2	111·2	99·1	103·9	104·0
Dec. 1	101·5	139·2	109·0	102·2	101·5	91·3	97·9	108·9	102·3
Average[1]	**99·6**	**99·5**	**99·7**	**99·6**	**99·7**	**99·2**	**99·5**	**99·2**	**99·6**
1927.									
Jan. 1	94·7	136·1	104·7	99·6	99·1	73·1	96·7	109·9	95·9
Feb. 1	98·2	149·1	104·0	99·1	95·4	67·6	95·9	102·2	96·6
Mar. 1	99·8	137·5	101·6	99·8	95·7	72·3	97·3	101·2	97·5
April 1	101·5	85·7	103·0	101·9	98·2	72·5	99·0	102·3	97·4
May 1	103·9	82·8	103·6	103·5	100·8	95·0	101·5	104·4	101·8
June 1	106·9	86·8	105·5	103·7	104·8	121·3	105·4	104·8	107·2
July 1	106·8	69·9	106·6	106·0	107·0	144·2	113·1	106·0	109·7
Aug. 1	107·0	68·6	109·4	106·6	105·0	150·2	115·8	107·3	110·5
Sept. 1	106·8	78·7	109·9	107·2	105·9	150·4	120·0	108·4	111·0
Oct. 1	106·4	96·8	111·5	107·2	106·5	139·8	115·3	109·4	110·3
Nov. 1	104·9	136·3	111·4	106·2	106·5	122·1	107·9	111·9	108·8
Dec. 1	104·3	182·7	113·1	104·6	107·1	99·5	106·9	121·2	108·1
Average	**103·4**	**109·3**	**107·0**	**103·8**	**102·5**	**109·0**	**106·2**	**107·4**	**104·6**
1928.									
Jan. 1	97·9	163·2	112·6	100·9	99·4	78·6	105·3	120·4	100·7
Feb 1	102·3	169·5	113·2	100·9	98·8	75·6	105·8	110·0	102·0
Mar. 1	104·7	159·6	111·4	101·2	97·3	73·3	105·3	109·7	102·6
April 1	106·6	88·3	109·0	102·3	98·2	78·6	108·4	111·1	102·3
May 1	109·0	78·5	111·5	105·0	100·7	103·7	111·7	111·7	106·8
June 1	112·6	85·9	112·3	106·9	108·0	136·8	118·4	113·7	113·8
July 1	113·1	69·5	113·1	108·7	109·2	154·3	130·8	115·3	117·7
Aug. 1	115·2	68·6	114·9	111·2	110·8	167·7	132·8	116·3	119·3
Sept. 1	115·9	75·0	115·7	114·8	111·5	158·7	132·5	116·0	119·1
Oct. 1	115·7	98·5	117·1	115·1	111·8	147·3	127·7	120·1	118·8
Nov. 1	115·1	139·3	121·2	114·1	113·4	137·4	120·8	121·3	118·9
Dec. 1	112 9	178·1	121·0	114·7	112·2	113·2	117·2	127·4	116·7
Average	**110·1**	**114·5**	**114·4**	**108·2**	**105·9**	**118·8**	**118·1**	**116·1**	**111·6**
Relative weight by industries as at Dec. 1, 1928	53·7	4·5	5·3	2·8	12·9	10·6	1·8	8·4	100·0

[1]The average for the calendar year 1926, including figures up to Dec. 31, 1926, being the base used in computing these indexes, the average index here given for the 12 months Jan. 1—Dec. 1, 1926, generally shows a slight variation from 100.

Section 10.—Old Age Pensions.

The Old Age Pensions Act, 1927.—An Act respecting Old Age Pensions (R.S.C., 1927, c. 156), was adopted by the Dominion Parliament in 1927. Under The Old Age Pensions Act, the Governor in Council is authorized to make an agreement with the Government of any province for the payment to such province quarterly of one-half the net sum paid out by such province for old age pensions pursuant to a provincial statute providing for the payment of such pensions to the persons and under the conditions specified in the Act and the Regulations made thereunder.[1]

Sec. 5 provides that before any such agreement is made with the Province the scheme for the administration of pensions proposed to be adopted by the province shall be approved by the Governor in Council, and that no change in such scheme shall be made without the consent of the Governor in Council.

Sec. 8 is as follows:—

(1) Provision shall be made for the payment of a pension to every person who, at the date of the proposed commencement of the pension:—

(a) is a British subject, or, being a widow who is not a British subject, was such before her marriage;
(b) has attained the age of seventy years;
(c) has resided in Canada for the twenty years immediately preceding the date aforesaid;
(d) has resided in the province in which the application for pension is made for the five years immediately preceding the said date;
(e) is not an Indian as defined by the Indian Act;
(f) is not in receipt of an income of as much as three hundred and sixty-five dollars ($365) a year, and
(g) has not made any voluntary assignment or transfer of property for the purpose of qualifying for a pension.

(2) The receipt of a pension shall not by itself constitute a disqualification from voting at any provincial or municipal election.

Sec. 9 provides that the maximum pension payable shall be $240 yearly, subject to reduction by the amount of the income of the pensioner in excess of $125 a year. A pensioner may transfer to the pension authority his interest in a dwelling house in which he resides, when the value of the dwelling will not be computed in calculating the amount of pension payable. The pension authority is entitled to recover out of the estate of any deceased pensioner the amount of pension payments with interest at 5 p.c., subject to the limitation that no claim shall be made for such recovery out of any part of the estate which passes by will or intestacy to any other pensioner or to any other person who has contributed since the grant of the pension, or for the last three years during which the pension has been paid, to the pensioner's support.

Secs. 10, 12, 13 and 14 provide for the distribution of the pension burden among the provinces where the pensioner has resided during the 20 years immediately preceding the grant of the pension. Sec. 11 provides for a reduction of pension where a pensioner has resided for a portion of the 20 years in a province which with no agreement is in force. Sec. 15 provides for a suspension of the pension where a pensioner has transferred his residence to some place out of Canada. It is pro-

[1]These Regulations are printed *in extenso* at p. 164 of the Labour Gazette for February, 1929.

vided by sec. 18 that no pension shall be subject to alienation or transfer by the pensioner nor to seizure in satisfaction of any claim against him. The Governor in Council was empowered by sec 19 to make regulations; pursuant to this section regulations were approved on June 25 and Sept. 26, 1927.

The first province to enter into an agreement with the Dominion Government under the Old Age Pensions Act was British Columbia, where the payment of pensions began on Sept. 1, 1927. The Province of Saskatchewan put the old age pension system into effect on May 1, 1928, and Manitoba adopted the plan on Sept. 1, 1928. It is expected that the necessary legislation to permit of the payment of old age pensions in Ontario and Alberta will be introduced during their 1929 sessions. An Ordinance passed by the Yukon Territorial Council on June 7, 1927, empowered the Gold Commissioner to enter into an agreement with the Dominion Government for the purpose of putting into effect in the Territory, or otherwise obtaining the benefit of, the Act respecting Old Age Pensions.

In British Columbia, as at Dec. 31, 1928, there were 3,736 old age pensioners, or 34·69 p.c. of the residents over 70 years of age. The total amount paid by the Province up to that date was $846,212, of which sum one-half was reimbursed to the Province by the Dominion Government.

As at Dec. 31, 1928, there were 1,828 persons in Saskatchewan, or 18·44 p.c. of the population over 70 years of age, receiving old age pensions. The total amount paid out by the Province was $152,835, one-half of which was borne by the Dominion Government.

As at Dec. 31, 1928, the number of persons receiving old age pensions in Manitoba was 3,448, or 31·19 p.c. of the population over 70 years of age. The total amount expended in this way was $244,665, divided equally between the Province and the Dominion.

29.—Statistical Summary of Old Age Pensions in Canada as at Dec. 31, 1928.

Items.	British Columbia.		Manitoba.		Saskatchewan.		Three Provinces.	
Number of pensioners	3,726		3,448		1,828		9,002	
Percentage of pensioners to total population	·64%		·53%		·21%		—	
Percentage of pensioners to population over 70 years of age	34·69%		31·19%		18·44%		—	
Total amount of pensions paid by province	$ 846,211.69		$ 244,664 84		$ 152,835.24		$ 1,243,711.77	
Average monthly pension	$18.00		$18.84		$18.10		—	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Conjugal condition—								
Married	820	383	1,054	499	590	256	2,464	1,138
Single	594	131	188	75	107	27	889	233
Widowed	638	955	605	1,025	364	475	1,067	2,455
Living apart	162	43	2	—	7	2	171	45
	2,214	1,512	1,849	1,599	1,068	760	5,131	3,871
Classification of British Subjects—								
Birth	3,400		2,598		1,378		7,376	
Naturalized	275		784		433		1,492	
Marriage	51		66		17		134	
	3,726		3,448		1,828		9,002	

20.—Statistical Summary of Old Age Pensions to Canada as at Dec. 31, 1928— concluded.

Items.	British Columbia.	Manitoba.	Saskatchewan.	Three Provinces.
Amount of property transferred to Pension Authority	Nil.	Nil.	Nil.	Nil.
Average income of pensioners having income (indigents not taken into account)	$ 59.89	$ 63.08	$ 60.89	—[1]
Number of pensioners with previous residence in other provinces—				
Alberta	314	27	36	37
British Columbia	—	48	25	7
Manitoba	207	—	154	36
New Brunswick	43	8	9	6
Nova Scotia	85	16	17	11
Ontario	313	178	233	72
Prince Edward Island	12	—	3	1
Quebec	54	19	35	10
Saskatchewan	202	140	—	34
Northwest Territories	—	2	—	
Yukon Territory	22	—	—	2
	1,252	438	512	2,20

[1] Not compiled.

21.—Country of Birth of Old Age Pensioners, by Provinces, as at Dec. 31, 1928.

Country of Birth.	British Columbia.	Manitoba.	Saskatchewan.	Totals.
Canada	1,652	1,646	922	4,2
England	1,098	585	289	1,9
Scotland	382	234	114	7
Ireland	188	105	41	3
United States	155	44	87	2
Iceland	3	250	13	2
Poland	5	204	53	2
Austria	7	121	95	2
Sweden	46	51	23	1
Russia	3	57	48	1
Germany	40	27	24	
Norway	19	20	40	
France	8	31	10	
Rumania	–	12	21	
Newfoundland	28	1	2	
Belgium	12	17	2	
Hungary	1	7	19	
Italy	21	3	–	
Finland	12	3	2	
Denmark	7	4	4	
Wales	1	8	3	
Holland	4	4	2	
Australia	7	1	–	
British West Indies	4	3	–	
India	4	2	1	
Other countries	19	8	13	
Totals	**3,726**	**3,448**	**1,828**	**9,0**

Section 11.—The Co-operative Movement in Canada.

A general article on "The Co-operative Movement in Canada" appeared at pp. 704-720 of the 1925 edition of the Year Book under the three sub-headings of "Consumers' Co-operation", "Co-operative Credit", and "Producers" Co-operation".[1] Because of the pressure upon space, this article is not reprinted here, but a digest of the latest available material on each of these three subdivisions of co-operation is included.

Subsection 1.—Consumers' Co-operation.

The co-operative store was first introduced into Canada by miners who had had experience of co-operation in Great Britain. The first co-operative store was opened at Stellarton, N.S., in 1861, and continued to do business until 1916. Many similar ventures were afterwards commenced, but a considerable number failed through their neglect to build up an adequate reserve fund. In 1909 the Co-operative Union of Canada was formed, with six affiliated societies and 1,595 members; since October 1909 it has published a monthly, "The Canadian Co-operator," from which the following statistics showing the growth of consumers' co-operation in the societies affiliated with the Co-operative Union have been taken.[2] (Table 22).

22.—Statistics of Co-operative Societies affiliated with the Co-operative Union of Canada, 1909-1927.

NOTE.—No data for the year 1916.

Years.	Societies	Members.	Share and Loan Capital.	Reserve Funds.	Stock in Trade.	Other Assets.	Sales.	Net Profits.	Purchase dividends paid.
	No.	No.	$	$	$	$	$	$	$
1909....	6	1,595	38,460	11,090	53,820	40,882	347,064	–	22,828
1910....	9	2,605	97,965	19,994	123,946	85,572	569,311	36,596	28,235
1911....	12	3,788	143,781	25,070	168,895	102,903	789,292	44,535	47,338
1912....	17	5,000	178,126	31,806	191,122	172,658	1,194,065	88,782	67,256
1913....	17	5,822	166,051	42,498	205,300	183,220	1,424,985	78,399	63,442
1914....	14	5,810	166,307	36,219	181,867	129,022	1,133,081	73,490	63,881
1915....	8	3,239	143,319	21,118	94,672	109,911	657,006	53,270	47,995
1917....	13	4,673	248,253	27,941	205,899	145,732	1,264,247	91,079	82,287
1918....	12	4,746	301,368	38,257	252,921	169,545	1,488,541	123,363	115,969
1919....	15	6,306	360,834	47,463	370,676	205,222	2,132,726	156,870	138,216
1920....	20	7,427	394,471	40,419	368,090	206,625	1,465,253	165,904	157,424
1921....	14	5,919	374,996	39,001	280,968	243,397	1,990,765	154,713	144,512
1922....	12	6,552	450,996	94,781	251,855	286,223	2,166,196	157,321	138,762
1923....	7	4,646	381,656	97,591	232,294	286,847	2,249,380	172,972	140,991
1924....	14	7,047	516,909	94,856	271,713	445,071	2,675,852	212,493	183,986
1925....	16	7,308	512,808	151,791	351,732	484,042	2,792,872	158,140	118,945
1926....	20	7,804	616,431	208,449	426,937	660,930	3,358,162	230,535	165,062
1927....	24	8,914	673,827	228,504	554,101	778,508	4,481,574	283,777	227,733

The progress shown by the returns from the societies affiliated with the Co-operative Union does not represent the whole growth of the consumers' co-operative movement in Canada. Although the societies affiliated with the Co-operative Union are among the oldest and best established, there is a larger number of consumers' co-operative societies outside the Union than within it, the great majority of these being in the western provinces. In 1926, the Manitoba Co-operative League was organized to link up the co-operative societies in the province, and a similar organization was formed in Alberta in 1923. In Saskatchewan an annual conference of representatives of co-operative societies has been held since 1923.

[1] The article referred to above was prepared for the Year Book by Miss Margaret Mackintosh, of the Department of Labour, Ottawa. [2] For details regarding the Co-operative Union of Canada and its activities, see the 1925 Year Book, pp. 708-9.

Subsection 2.—Co-operative Credit in Quebec.

A form of co-operation which has achieved great success is that which provides short-term credit for small farmers and industrial workers in the province of Quebec. In 1900, what are known as "Les Caisses Populaires", or People's Banks, were begun with the establishment by the late Alphonse Desjardins of La Caisse Populaire at Lévis. M. Desjardins adopted the principles of lending money only for approved purposes to carefully selected members in a restricted area, of limited liability, of withdrawable shares of small amount payable by instalments and of distribution of profits. These banks are for the most part established in agricultural districts. Loans are made to purchase agricultural implements at cash prices, to increase farm live stock, to improve farm buildings, to tide over a period of depression, to get out of a merchant's debt and for various other similar purposes. The loans, though comprised within the term "short credit", are for longer periods than are usual in ordinary commercial transactions, because agricultural operations necessarily extend over longer periods than those of trade. They may be for 12, 15, or even 24 months, because they must give time for the farmer to realize on his products.

At present these banks are organized under the Quebec Syndicates Act, 1906. The value of the shares is generally $5, which may be paid in instalments. The liability of the shareholders is limited to the value of their shares, which generally does not exceed $2,000 per shareholder. Shareholders and borrowers must reside within the area of the bank's field of operations, except that under the by-laws shareholders who remove from the locality may continue their holdings in the bank, but without participation in the management by holding office. Larger loans are made upon mortgage and the smaller ones upon notes, but a portion of the loan capital and interest must be repaid at fixed periods in such a way as to extinguish the debt within a determinate time. Each bank is administered by a board of from five to nine members. A credit committee of at least three members passes on the loans requested by shareholders, and a board of supervision of three members checks loans and value of securities and audits the accounts. The members of these boards give their services gratuitously.

The following table (Table 23) exhibits the progress of the banks during the thirteen years 1915 to 1927. The table is compiled from statistics included in successive volumes of the Quebec Year Book.

23.—Progress of Co-operative People's Banks in Quebec, 1915-1927.

Years.	Banks Reporting.	Members.	Depositors.	Borrowers.	Loans Granted.	Value of Loans Granted.	Profits Realized.
	No.	No.	No.	No.	No.	$	$
1915	91	23,614	13,693	6,728	8,983	1,483,160	89,89
1916	94	25,028	15,613	6,696	11,201	1,641,258	100,94
1917	93	25,669	18,977	7,458	12,741	2,306,172	148,59
1918	98	27,593	20,672	8,056	14,293	2,623,096	180,03
1919	100	29,795	23,451	9,148	14,386	3,667,004	238,37
1920	113	31,752	26,238	9,213	15,390	4,341,544	311,32
1921	100	31,029	30,570	9,219	14,983	1,248,725	352,94
1922	108	33,166	30,583	8,999	13,367	2,891,092	334,39
1923	111	32,173	29,771	8,373	12,273	3,429,444	354,80
1924	119	31,250	30,874	8,414	11,017	3,763,852	398,97
1925	122	33,279	33,527	9,384	13,682	3,909,790	449,53
1926	154	36,298	37,343	10,418	15,843	4,493,956	468,03
1927	159	41,365	40,753	11,754	16,832	4,778,761	537,29

From the table it will be seen that good progress has been made during the thirteen-year period. The number of banks reporting increased from 91 in 1915 to 159 in 1927, the membership from 23,614 to 41,365, the number of depositors from 13,696 to 40,753, borrowers from 6,728 to 11,754, the number of loans granted from 8,983 to 16,832, their amount from $1,483,160 to $4,778,761, and the profits realized from $89,893 to $537,294.

Subsection 3.—Producers' Co-operation.[1]

The chief co-operative organizations of producers in Canada, as is clearly shown in the article on co-operation published in the 1925 issue of the Year Book, are engaged in agricultural operations, including the grain growers of the prairies, the dairy farmers of Ontario and Quebec, and the fruit and vegetable growers of Nova Scotia, Ontario and British Columbia. The largest co-operative organizations in Canada are found among the grain growers of the Prairie Provinces.

The Wheat Pools.—Particulars regarding the formation of the wheat pools of the Prairie Provinces will be found at pp. 712-714 of the 1925 Year Book. The recent increase in their membership and business transacted is shown in the following table.

24.—Pool Membership, Acreage and Bushels handled by the Wheat Pools of the Prairie Provinces, 1925-1928.

Provinces.	Pool Membership.	Pool Acreage.	Pool Handling.
	No.	acres.	bush.
1925-26 Crop Year—			
Alberta	35,997	3,457,673	45,159,595
Manitoba	14,372	1,058,182	12,487,859
Saskatchewan	72,016	9,564,299	129,600,522
Total	122,385	14,080,154	187,247,886
1926-27 Crop Year—			
Alberta	38,460	3,650,703	44,287,382
Manitoba	17,234	1,215,047	16,208,625
Saskatchewan	80,418	10,664,948	119,459,472
Total	136,112	15,530,698	179,955,479
1927-28 Crop Year—			
Alberta	43,863	4,072,515	71,117,000
Manitoba	19,582	1,346,414	11,191,000
Saskatchewan	86,125	11,216,136	127,559,000
Total	149,570	16,635,145	209,870,000

Section 12.—Labour Legislation in Canada.

The Dominion Department of Labour has issued since 1915 an annual report on Labour Legislation in Canada. The reports for the years 1915 and 1920 were consolidations of legislation in force in those years. The reports for other years give the text of the labour legislation enacted during the respective years. A third consolidation is to be published in 1929.

[1] See also pp. 712–720 of the 1925 Year Book and pp. 711–713 of the 1926 Year Book.

Some of the labour laws contained in these reports are enactments of the Dominion Parliament; others are provincial. This grows out of the division of legislative control between the Dominion and the provincial authorities. Under the British North America Act, the Dominion Parliament was given power to enact laws regarding the regulation of trade and commerce, census and statistics, navigation and shipping, naturalization and aliens and, generally, for the peace, order and good government of Canada in relation to all matters not coming within the classes of subjects assigned exclusively to the Legislatures of the provinces. In addition, the Dominion Parliament has jurisdiction over criminal law. To the provinces was given authority to legislate on matters affecting property and civil rights, municipal institutions, local works and undertakings other than such as are of an interprovincial nature and, generally, all matters of a merely local and private nature. Accordingly, laws governing factories, mines, shops and employment conditions generally, are of provincial origin, but laws definitely restricted to employment in undertakings carried on in connection with transportation and communication services and Dominion public works are enacted by the Dominion Parliament, as well as laws regarding immigration and the punishment of crime.

In certain classes of legislation which are within provincial jurisdiction, the Dominion Parliament has co-operated with the provinces in order to render a more effective service throughout the Dominion. Such legislation is found in the Technical Education Act, Employment Offices Co-ordination Act and Old Age Pensions Act. Co-operation by the provinces with the Dominion for the prevention and settlement of industrial disputes through the machinery of the Dominion Industrial Disputes Investigation Act is achieved by provincial legislation declaring such disputes to be subject to the provisions of the Dominion Statute.

Subsection 1.—Dominion Labour Legislation.

The welfare of persons employed in the construction of Dominion public works has been taken care of by Dominion legislation. The payment of "fair" wages, that is, wages in accordance with the rates prevailing in the district, is assured to these workers and to all employed in the carrying out of Government contracts by a resolution of the House of Commons to this effect and by Orders in Council as well.

The *Canada Shipping Act* fixes a minimum age for the employment of boys at sea, safeguards the hiring of seamen, provides for their health and safety and ensures the payment of wages.

The *Railways Act* contains provisions for the safety of persons employed on railways within the legislative jurisdiction of the Dominion, requires the payment of wages at least semi-monthly and prescribes penalties for the failure of employees to perform their duties.

The *Railways Act* requires the payment of "fair" wages to all employed in any railway construction aided by Parliament.

Sunday labour, except in works of necessity and mercy, is prohibited by the Dominion *Lord's Day Act.*

Persons employed in handling explosives are protected by Dominion legislation. The importation and manufacture of white phosphorus matches is forbidden. Such special classes as the employees on Dominion government railways and vessels are, of course, taken care of by Dominion laws.

The *Trade Unions Act* of 1872 exempted these organizations from liability to criminal prosecution on the ground of conspiracy in restraint of trade, and conferred

on a union registered under the Act limited power to buy and sell property and act through its agents.

An amendment of the same year to the criminal law was designed to curb violence or intimidation on the part of labour organizations by declaring certain acts to be offences.

Subsequent legislation dealing with combinations affecting trade to the detriment of the public has specifically exempted labour organizations from its operation.

An amendment to the Trade Mark and Design Act in 1927 gives to trade union labels the same protection as is accorded to trade marks. This union label is placed on goods under agreement between employers and employed, to distinguish products made under working conditions satisfactory to the employees.

Provincial statutes dealing with industrial disputes were passed in Ontario, Quebec, Nova Scotia and British Columbia, but were of little practical service. In 1900 the Dominion Conciliation Act provided for a Department of Labour to collect and publish labour information and for special officers to act as conciliators or mediators in industrial disputes. This statute, consolidated with the Railway Labour Disputes Act of 1903 as the *Conciliation and Labour Act*, is referred to elsewhere. Designed to supplement this law in disputes involving the operation of mines and public utilities, the *Industrial Disputes Investigation Act* of 1907 provided for the compulsory investigation of disputes between employers and employed engaged in the operation of mines or public utilities. The Act provided further that its machinery might be utilized in disputes in other industries with the consent of both parties. The application of this Act to the employees of a provincial undertaking led to the question of its validity as a Dominion enactment coming before the Courts, and in 1925 the Judicial Committee of the Privy Council declared the Act to be one primarily affecting property and civil rights and as such within the provincial legislative field. Accordingly, the Act was amended to confine its direct application to those industries of the classes specified in the Act which are subject to Dominion regulation, but to provide also that disputes in connection with mines and public utilities within the exclusive jurisdiction of any province might be brought within the Dominion Act by legislative enactment to that effect on the part of the particular province. The Legislatures of British Columbia, Alberta, Saskatchewan, Manitoba, New Brunswick and Nova Scotia have passed such laws.

The *Employment Offices Co-ordination Act*, 1919, provided for the linking up of provincial employment offices, the establishment of interprovincial clearing houses to facilitate the transfer of labour according to local needs and the compilation and publication of information.

The *Technical Education Act*, 1919, provided for a sum of $10,000,000 to be divided among the provinces over a period of ten years in proportion to population but so as not to exceed the amount spent by any province on technical education. This action was taken by the Dominion to assist the different provinces in bearing the cost of developing a system of technical education.

The *Old Age Pensions Act*, 1927, is another Dominion statute which depends for its execution on legislative action by the provinces. British Columbia, Alberta, Manitoba and Saskatchewan have already passed laws taking advantage of the provisions of this Act, and the Old Age Pensions system is accordingly in effect in these provinces.

Information concerning the operation of the Industrial Disputes Investigation Act, Employment Offices Co-ordination Act and Old Age Pensions Act is given in another section of this chapter.

Subsection 2.—Provincial Labour Legislation.

The earliest provincial labour laws were concerned with the relation of master and servant and with apprenticeship. All the provinces have statutes governing, in general, the wage contract and all had laws providing for apprenticeship. In Manitoba and Ontario the latter Acts have been repealed as obsolete. The Ontario Apprenticeship Act, 1928, is more in line with modern industrial conditions and is based on the co-operation of employers for the training of boys of 16 years or over under provincial regulation and with provincial inspection. The plan applies in the first instance to the building trades, but other trades may avail themselves of it if at least 25 employers petition to that effect.

Trade Unions and Disputes.—A British Columbia Act declares a trade union not to be liable for any wrongful act in connection with a strike or lockout unless the union through its officers authorized or concurred in such act. Persuasion without intimidation or the publication or communication of information concerning a dispute may not be enjoined or made a cause for damages. The Quebec Professional Syndicates Act, 1924, enables the incorporations of trade unions of 20 or more persons of whom two-thirds are British subjects, with the right to hold property, establish benefit funds, buy and sell household supplies and tools and enter into agreements with similar organizations and with employers.

In addition to early legislation concerning industrial disputes in Nova Scotia, Ontario and British Columbia, which was ineffective, there are laws in Quebec and Ontario under which disputes may be settled. The Quebec Trades Disputes Act provides mediatory services and machinery for conciliation, and the Ontario Railway and Municipal Board Act enables mediation or arbitration or the taking over by the Board of railways or public utilities under its jurisdiction in the event of any interruption to services due to industrial disputes. The Quebec Municipal Strike and Lockout Act of 1921 provides for compulsory arbitration of disputes involving 25 or more persons employed in municipal police, fire, water and garbage services, with prohibition of strike or lockout pending arbitration.

Mining laws provide for inspection for the protection of the labour employed. Prince Edward Island with an almost entirely agricultural population has no factory or mining legislation and the New Brunswick Mines Act does not regulate labour conditions. Coal Mines Regulation Acts in Nova Scotia, Alberta and British Columbia fix the minimum age for employment for work below ground at 16 in the case of the two first-named provinces and at 15 in British Columbia. In the two western provinces, employees above ground must be over 14, but in Nova Scotia they must be over 16. These three provinces provide for an 8-hour day for all workers below ground, and in British Columbia those employed above ground have also an 8-hour day. Employees below ground in metal mines must be over 14 years of age in British Columbia and 16 years of age in Alberta and Nova Scotia. No minimum age is fixed for workers above ground in metal mines in British Columbia. In Alberta they must be 14 and in Nova Scotia 16. The minimum ages for employment under ground in mines in other provinces are 15 in Quebec, 18 in Ontario, 14 in Saskatchewan and 12 in Yukon Territory. In Ontario, workers above ground must be 16, in Saskatchewan 14 and in Yukon 12. Quebec fixes no minimum age for such employment. Alberta requires a certain educational standard for boys under 16. In Ontario, miners below ground in those parts of the province without county organization have an 8-hour day. In Quebec and British Columbia the law limits the working hours of boys under 18 and 17 respectively. In 1927, Mani-

toba empowered the Lieutenant-Governor in Council to regulate the age, sex and hours of labour of miners. The laws of all these provinces provide for the health and safety of mine employees.

Factory legislation in Canada dates from the enactment in 1884 of the Ontario Act. A minimum age for employment in industrial establishments is fixed by all the provincial statutes except that of New Brunswick, and hours of labour for women and young persons are limited, the eastern provinces in general permitting longer hours than the western. Exemption from the normal hours may be permitted by the inspector, but in all the provinces except Alberta the period of exemption is limited to 36 days. Fourteen is the minimum age for boys and girls in industrial employment in Nova Scotia, Quebec and Ontario and for boys in Manitoba and Saskatchewan, 15 being the minimum age in Alberta and British Columbia and for girls in Manitoba and Saskatchewan. Nova Scotia and British Columbia give special exemption to the fish and fruit industries and in New Brunswick the Factory Act does not apply to fish and fruit canneries. A 10-hour day and 60-hour week is permitted for women in New Brunswick, Ontario and Quebec (a 55-hour week in cotton and woollen mills in Quebec). This limitation also applies to boys under 16 in Ontario and boys under 18 in Quebec. In Manitoba there is a statutory 9-hour day and 54-hour week for young persons and women, and in Alberta for all factory employees except certain classes in towns of less than 5,000. The Saskatchewan law restricts factory hours of young persons to 48 a week and the British Columbia law to 8 hours a day and 48 a week. In Nova Scotia there is now no restriction imposed on working hours, except that a permit must be obtained when longer hours are worked than are customary in the industry. All the factory laws prescribe measures for the safety and health of the employees, giving particular attention to women and young persons. Provision is made for regular inspection and notices regarding the provisions of the law are required to be posted.

Shops.—In Ontario and Alberta a minimum age of 14 and 15 respectively is fixed for employment in shops. Nova Scotia, Manitoba and British Columbia regulate the working hours of young persons in shops, but in these provinces, as in the others, these limits are further restricted by municipal by-laws under the Early Closing Acts. In Quebec no child under 16 unable to read and write fluently, unless attending night school, can be employed in any trade or business.

School attendance laws affect also the employment of children, school attendance being compulsory throughout all the provinces except Quebec and New Brunswick. In the latter province, attendance is compulsory in Fredericton, Saint John, Newcastle, Chatham and Marysville, but in the rest of the province the matter is left to municipal councils, or, in rural parts, to the school district. The school-leaving age in British Columbia, Alberta, and Saskatchewan is 15, 14 in Manitoba and in the rural districts of Nova Scotia and in the above-named towns of New Brunswick. In Ontario the minimum age is 16, except for children in the country districts who are working at home, or for children in urban centres, who may be given special permits if over 14 years of age. In cities and towns of Nova Scotia and in those towns of New Brunswick where attendance is compulsory by by-law, the school-leaving age is 16. In districts in Manitoba having an attendance officer, the school-leaving age is 15, or 16 if the child is not regularly employed.

Children's Protection Acts or Child Welfare Acts contain clauses regarding children in street trades or places of amusement. Legislation of this kind is found

also in municipal laws. In Ontario, the law stipulates that no boy under 12 or gir under 16 shall engage in street trades at any time and no boy under 16 between 1(p.m. and 6 a.m. In the three Prairie Provinces provision is made for the taking in c custody of children of specified ages working in the street, and in these three pr vinces and in Ontario a penalty is prescribed for any person who causes the employ ment of a child of specified age in any circus or place of public amusement withou special permit, or employment in any public place at night. In British Columbi by-laws may regulate employment in bowling-alleys and such places, and in Queb by-laws may govern employment of children in streets or public places, but in t latter province no children under 16 unable to read and write fluently may act messengers or newsboys, unless attending night school, and not after 8 p.m. Nova Scotia street trades are forbidden to children in school hours and in N Brunswick commissioners of juvenile courts may regulate such employment, but up to the present no juvenile courts have been established in this province. The Ma toba Child Welfare Act prohibits the habitual employment of a child under between 9 p.m. and 6 a.m. and prescribes a penalty for causing one under 18 to employed "for hire" between 9 p.m. and 8 a.m. The Child Welfare Act of Alber contains a somewhat similar provision but has not yet been proclaimed in forc The same laws stipulate that no child under 16 shall be employed in any harmf occupation.

Minimum wage laws have been enacted by all the provinces but New Bruns wick and Prince Edward Island. No action has been taken under the Nova Scoti statute. These laws provide for the fixing by administrative boards of minimu rates of wages for female employees in the classes of occupations within the scope the respective statutes. In Manitoba, Saskatchewan, Alberta and Nova Scotia the law applies only to workers in cities or towns and within this limitation t employees in factories, shops, hotels and restaurants in the two first-named provinces In Alberta the law includes all trades or occupations except domestic service. Th British Columbia Act applies to all female employees in the province and the Ontari to all but farm labourers and domestic servants. The Quebec statute is limited t industrial establishments. The minimum wage laws of all but Quebec and Ontari enable maximum hours of labour to be established. In the latter the board ma specify the hours for which the rates are payable. The provisions of the Orde issued by the boards are set out elsewhere in this chapter.

The Male Minimum Wage Act of British Columbia provides for the establis ment of minimum rates of wages for all male employees except farm labourer domestic servants and those in the fruit and vegetable industry. An Order coverin the lumbering industry issued under this Act was declared invalid by the Supre Court of Canada in October, 1928, owing to the application of the Order to employed in the industry rather than to the various occupations concerned.

The employment of women in places of business owned or conducted by Or entals has been affected by legislation of British Columbia, Saskatchewan an Ontario. In Manitoba, a statute prohibiting such employment has not been pr claimed in effect. A similar enactment in Ontario requires the issue of a proclam tion before it becomes effective. In Saskatchewan and British Columbia munic pal authorities are empowered to prevent such employment.

Fair Wages.—All the provinces but Prince Edward Island require the payme of not less than the current rate of wages to certain classes of employees. Perso

employed in the construction of public works are so protected by statute in Manitoba and New Brunswick and by resolution of the Legislature or departmental regulations in the other provinces. In Alberta and Ontario the law stipulates that persons engaged in the construction of railways which are paid provincial subsidies are to be paid "fair" wages. The same provision is made in connection with the building of highways in Alberta, municipal works and ship-building in British Columbia if the latter is receiving aid from the Government, and with mining in Crown mines in Nova Scotia.

Hours.—Except provisions in legislation dealing with factories, mines, shops and railways, there are few statutes dealing with hours of labour. The Hours of Work Act in British Columbia assures an 8-hour day and 48-hour week to all employees in industrial undertakings in that province with certain exceptions. Agriculture and horticulture are not within the scope of this statute. Manitoba provides for a weekly rest-day in cities for employees in factories, laundries, theatres, hotels and restaurants, street railways and municipal works, including policemen and firemen, with certain exceptions. Special classes, such as employees in hotels and restaurants, are given a statutory weekly holiday in Quebec and in Ontario cities of over 10,000. Firemen in Ontario, British Columbia, Alberta, Saskatchewan and Nova Scotia have 24 hours off duty at change of platoon. In Alberta this law applies only to cities and towns having a population of 10,000 or more and in Nova Scotia to cities of 30,000 or more. In Saskatchewan the platoon system does not apply to municipalities which rejected it by vote of the electors during the year 1927. In Ontario, British Columbia and Alberta, provision is made for a weekly rest-day for firemen, but the British Columbia law containing this provision applies only to certain municipalities and the Alberta law does not apply to any municipality except by vote of the electors.

Workmen's Compensation.—All provinces have enacted laws providing compensation to workmen for accidents or diseases occurring in the course of their employment. In Prince Edward Island the Act applies only to railway employees, but in the other provinces practically all industries are covered except agriculture and domestic service. Agricultural labourers are within the British Columbia Act. Dominion Government employees are within the scope of the workmen's compensation law of the province in which they are employed if their occupations are such as are covered by the provincial Act. In Nova Scotia, New Brunswick, Ontario, Manitoba, Alberta, British Columbia and Saskatchewan a workmen's compensation board administers an accident fund made up by assessments on employers according to the hazard of the industry, the employers in each class of industry being collectively liable for accidents in that class. In certain large industries in these provinces employers are made individually liable for compensation. Provincial and municipal corporations and public utilities are in this class.

In Quebec, under an Act of 1928, employers, except the Crown, municipal and school authorities and Dominion railway corporations, are required to insure in an approved insurance company which must pay the compensation awarded by the commission established in accordance with the Act. The Saskatchewan statute of 1928, like the Alberta Act, permits the men in the running trades of the railways to remain under the former compensation system if they so desire.

The following table sets out rates of compensation; these are in addition to medical services:—

Items.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
Death—								
Funeral.....	$75	$100	$125	$125	$150	$125	$125	$100
Widow or invalid widower per month.	$30	$30	30 p.c. wages	$40 plus lump sum of $100	$30	$40 plus lump sum of $100	$35	$35
Each child[1] under 16 per month.	$7.50	$7.50 up to 18 yrs. if a girl.	10 p.c. wages up to 30 p.c.	$10 up to $40	$12+$10 +$9+$8 and $8 for each additional child up to 18 yrs. for education.	$10	$12+$10 +$9+$8 for each additional child up to 18 yrs. for education.	$7.50 max. $30.
Orphan child under 16 per month.	$15 max. $60	$15	20 p.c. wages max. 60 p.c.	$15	$15	$15	$15	$15 max. $60.
Disability[2]—Per cent of earnings for duration.	55 p.c. min. $5 per wk. or 100 p.c. earnings.	55 p.c. min. $6 per wk. or 100 p.c. earnings.	66⅔ p.c. max. $20 per wk. min. $6 per wk.	66⅔ p.c. min. $12.50 per wk.	66⅔ p.c. min. $15 week or 100 p.c. earnings.	66⅔ p.c. min. $12.50 per wk.	66⅔ p.c. min. of $10 per week.	62½ p.c. min. of $5 per wk.
Maximum earnings	$1,200	$1,500 max. comp. $2,500	$1,560 max. comp. $6,000	$2,000	$2,000	$2,000	$2,000 max. comp. $1,250	$2,000

[1]Invalid child entitled to compensation for longer period.
[2]Where disability is partial, same rate is fixed except in Quebec but is calculated on difference between earnings prior to and subsequent to accident. In Quebec rate for partial disability is 66⅔ p.c. for period of time fixed, basis being 4 weeks for each 1 p.c. of incapacity. In New Brunswick, Board may fix amount for permanent partial disability.

Miscellaneous.—Provincial Railway Acts safeguard employees on railways within the provinces. Other statutes ensure the payment of wages through providing for mechanics' and woodmen's liens. The Public Health Acts require inspection of factories and other establishments where persons are employed. Steam boilers are inspected in all provinces and stationary engineers required to have certain qualifications. There are laws providing for the licensing of moving-picture operators, chauffeurs, and other classes of workers. The Elections Acts contain provisions safeguarding employees who are voters.

Section 13.—Legislation Respecting Combinations in Restraint of Trade.

In the 1927-28 edition of the Canada Year Book at pp. 765-770 a general article on Canadian legislation concerning trade combinations and monopolies against the public interest will be found under the heading "Legislation Respecting Combinations in Restraint of Trade". In addition to an outline of the Combines Investigation Act, 1923, and a review of the principal cases dealt with under this Act, the article includes a brief statement of the provisions against combines as contained in the Criminal Code[1], the Customs Tariff[2], the Excise Act[3], and the Patent Act[4]. A further section of the article summarizes former Canadian legislation for the investigation of combines, including the Combines Investigation Act of 1910 and the Combines and Fair Prices Act of 1919.

[1]R.S., 1927, c. 146, ss. 498-498. [2]R.S., 1927, c. 44, s. 15. [3]R.S., 1927, c. 60, s. 27. [4]R.S., 1927, c. 150, s. 40

The Combines Investigation Act in 1927 and 1928.—Certain changes of arrangement and expression were made in the Combines Investigation Act by the Statute Revision Commission in 1927. The Act, formerly c. 29 of the 1923 Statutes, is now c. 26 of the Revised Statutes, 1927, and is now referred to as "The Combines Investigation Act"; formerly its short title was "The Combines Investigation Act, 1923". The wording of the definition of a "combine" has been transposed, and now appears, in sec. 2 of the statute as follows:

"In this Act, unless the context otherwise requires,

(1) combines which have operated or are likely to operate to the detriment or against the interes of the public, whether consumers, producers or others, and which
(a) are mergers, trusts or monopolies, so called; or
(b) result from the purchase, lease, or other acquisition by any person of any control over or interest in the whole or part of the business of any other person; or
(c) result from any actual or tacit contract, agreement, arrangement, or combination which has or is designed to have the effect of
(i) limiting facilities for transporting, producing, manufacturing, supplying, storing or dealing, or
(ii) preventing, limiting or lessening manufacture or production, or
(iii) fixing a common price or a resale price, or a common rental, or a common cost of storage or transportation, or
(iv) enhancing the price, rental or cost of articles, rental, storage or transportation, or
(v) preventing or lessening competition in, or substantially controlling within any particular area or district or generally, production, manufacture, purchase, barter, sale, storage, transportation, insurance or supply, or
(vi) otherwise restraining or injuring trade or commerce,

are described by the word 'combine'."

An investigation by a commissioner into the Proprietary Articles Trade Association, an alleged combine of wholesale and retail druggists and manufacturers, was completed in 1927. This association was organized in March, 1926, for the purpose of fixing and maintaining minimum resale prices of proprietary medicines and toilet articles in Canada. The investigation in 1927 followed an investigation of the same association by the Registrar in 1926, the second investigation being granted by the Minister of Labour on the request of the association for a formal hearing and a more extensive inquiry. The commission found the association to be a combine which had operated and was likely to operate to the detriment of and against the interest of the public, his finding confirming in this respect the decision of the Registrar. The commissioner's investigation disclosed, among other points, that, as a result of the association's operations, prices of proprietary medicines and toilet articles had been advanced and were likely to be further advanced, that opportunities for retail price reductions had been lessened, that manufacturers had been coerced into membership in the association, and that the enforcement, by means of a stop-list, of uniform margins of gross profit to distributors, had prevented consumers from continuing to secure lower prices from low-cost distributors.

The report of the commissioner on the Proprietary Articles Trade Association was made public on Oct. 26, 1927. Immediately after its publication the association withdrew its stop-list and ceased operations. Another organization, the Fair Trade League, established along similar lines, for the protection of prices, chiefly in the grocery trade, also discontinued operations. In certain other trades the effect of the decision in the Proprietary Articles Trade Association case was to discourage the formation of price-maintenance combinations which were under consideration.

Other complaints and inquiries during 1927 and 1928 related to primary, manufacturing, and distributive industries and trades. A number of these, as in

previous years, related to difficulties resulting from rapidly changing methods o distribution and new methods of competition, with their resulting disturbances o established business relationships and practices. The points involved in th cases included matters of resale price maintenance, uniform price-fixing agreeme by groups of manufacturers and distributors, the withholding of supplies from cert dealers, and other practices alleged to be in restraint of trade and against the intere of the public.

PART II.—WAGES AND COST OF LIVING.

Section 1.—Wage Rates[1].

Statistics of rates of wages and hours of labour have been collected for rece years by the Dominion Department of Labour, and are published in a series bulletins supplementary to the Labour Gazette. Report No. 1 of this series w issued in March, 1921. The records upon which the statistics are based begin most cases with the year 1901. Index numbers have been calculated to show t general movement of wage rates; 21 classes of labour are covered in this series b to 1901, 4 classes of coal miners back to 1900, and common factory labour, misc laneous factory trades and lumbering back to 1911. The index numbers are bas upon wage rates in 1913 as 100.

The accompanying table of index numbers (Table 1) shows the relative chang from year to year. A downward movement appeared in most of the groups in 19 and 1922, after the peak had been reached in 1920. The index numbers for 19 and 1924 showed on the whole a slightly upward trend, but while there were slig increases during 1925 in some groups, a substantial decline in coal miners' wag reduced the average. In 1926 slight increases took place in the wages paid by t building, metal and printing trades, electric railways and steam railways. In 19 general increases took place in all the six groups included in the average, as well in the other three groups; wage increases in the building trades and on the stea railways were the outstanding features of the year. In 1928, except steam railwa which was stationary, and common factory labour which declined fractionally, groups showed an upward movement, a substantial increase appearing in build trades.

The rates of wages and hours of labour of employees on steam railways Canada in recent years are given in Table 2, and comparable figures for earlier ye will be found at p. 715 of the 1926 Year Book. Wages of employees in coal mine Nova Scotia, Alberta and British Columbia are given in Table 3. Sample wa and hours of labour for miscellaneous factory trades and for unskilled factory labo in Canada in recent years will be found at pp. 717-719 of the 1926 Year Boo Finally, rates of wages and hours of labour in 1927 in various trades in the larg cities of the five economic areas of Canada will be found in Table 4. The attenti of those specially interested in the subject of wages and hours is directed to t valuable detailed study, "Wages and Hours of Labour in Canada, 1920 to 192 published by the Department of Labour as a supplement to the Labour Gazet January, 1929.

[1] See pp. 774-783 of the 1927-28 Year Book for an article on the "Wages Statistics of the Cen of 1921."

1.—Index Numbers of Rates of Wages for Various Classes of Labour in Canada, 1901-1928.

Rates of Wages in 1913=100.

Years.	Average.[1]	Building Trades.	Metal Trades.	Printing Trades.	Electric Railways.	Steam Railways.	Coal Mining.	Common Factory Labour.	Miscellaneous Factory Trades.	Logging and Sawmilling.
1901	67·4	60·3	68·6	60·0	64·0	68·8	82·8	–	–	–
1902	70·0	64·2	70·2	61·6	68·0	72·0	83·8	–	–	–
1903	72·5	67·4	73·3	62·6	71·1	75·1	85·3	–	–	–
1904	74·5	69·7	75·9	66·1	73·1	76·9	85·1	–	–	–
1905	75·7	73·0	78·6	68·5	73·5	74·5	86·3	–	–	–
1906	78·6	76·9	79·8	72·2	75·7	79·3	87·4	–	–	–
1907	82·8	80·2	82·4	78·4	81·4	81·0	93·6	–	–	–
1908	84·9	81·5	84·7	80·5	81·8	86·1	94·8	–	–	–
1909	85·9	83·1	86·2	83·4	81·1	86·3	95·1	–	–	–
1910	88·9	86·9	88·8	87·8	85·7	90·1	94·2	–	–	–
1911	92·3	90·2	91·0	91·6	88·1	95·7	97·5	94·9	95·4	93·3
1912	96·0	96·0	95·3	96·0	92·3	97·9	98·3	98·1	97·1	98·8
1913	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
1914	101·3	100·8	100·5	102·4	101·0	101·4	101·9	101·0	103·2	94·7
1915	101·4	101·5	101·5	103·6	97·8	101·7	102·3	101·0	106·2	89·1
1916	105·8	102·4	106·9	105·8	102·2	105·9	111·7	110·4	115·1	109·5
1917	119·9	109·9	128·0	111·3	114·6	124·6	130·8	129·2	128·0	130·2
1918	143·6	125·9	155·2	123·7	142·9	158·0	157·8	152·3	146·8	150·5
1919	165·3	148·2	180·1	145·9	163·3	183·9	170·5	180·2	180·2	169·8
1920	197·8	180·9	209·4	184·0	194·2	221·0	197·7	215·3	216·8	202·7
1921	191·2	170·5	186·8	193·3	192·1	195·9	208·3	190·6	202·0	152·6
1922	182·4	162·5	173·7	192·3	184·4	184·4	197·8	183·0	189·1	158·7
1923	183·3	166·4	174·0	188·9	186·2	186·4	197·8	181·7	196·1	170·4
1924	183·7	169·7	175·5	191·9	186·4	186·4	192·4	183·2	197·6	183·1
1925	179·7	170·4	175·4	192·8	187·8	186·4	167·6	186·3	195·5	178·7
1926	180·5	172·1	177·4	193·3	188·4	186·4	167·4	187·3	196·7	180·8
1927	184·3	179·3	178·1	195·0	189·9	198·4	167·9	187·7	199·4	182·8
1928	187·6	185·6	180·1	198·3	194·1	198·4	168·9	187·1	200·9	184·3

[1]Simple average of the six succeeding columns.

2.—Rates of Wages and Hours of Labour of Employees of Steam Railways in Canada, 1923-1928.

NOTE.—The unit for the running trades is 100 miles, but telegraphers and despatchers are paid by the month. Maintenance-of-way employees are paid by the day, and car and shop employees by the hour. For similar figures for 1920–22 see p. 715 of the 1926 Year Book.

Occupations.	September, 1923-26.		September, 1927-28.	
	Wages.	Hours per week.	Wages.	Hours per week.
Running Trades[1]—	$		$	
Conductors, passenger	4·27	[2]	4·47	[2]
Conductors, freight, through	5·80	[3]	6·16	[3]
Brakemen, passenger	2·93	[2]	3·13	[2]
Brakemen, freight, through	4·48	[3]	4·84	[3]
Baggagemen, passenger	3·04	[2]	3·24	[2]
Engineers, passenger	5·92–6·92	[2]	6·16–7·16	[2]
Engineers, freight	6·48–8·40	[3]	6·89–8·76	[3]
Firemen, passenger	4·32–5·52	[2]	4·56–5·76	[2]
Firemen, freight	4·64–6·15	[3]	5·00–6·51	[3]
Despatchers[1]	230·00–238·00	48	225·00–252·00	48
Telegraphers[1]	117·00–129·00	48	122·00–134·00	48
Maintenance-of-Way—				
Foremen (on line)	4·40	48	4·55	48
Sectionmen (on line)	3·04[4]	48	3·20	48
Car and Shop Trades—				
Blacksmiths	·70	44	·74	44
Boilermakers	·70	44	·74	44
Machinists	·70	44	·74	44
Moulders	·70	44	·74	44
Carpenters, freight	·63	44	·67	44
Painters, freight	·63	44	·67	44
Repairers, freight	·63	44	·67	44
Cleaners	·38	44	·42	44

[1] Rates for running trades and despatchers and telegraphers in British Columbia are slightly higher than above. Where ranges are shown for despatchers and telegraphers, the lower rate is that paid east of Fort William, and the higher rate is that paid west of Fort William to British Columbia.
[2] Basis of 20 miles per hour. [3] Basis of 12½ miles per hour. [4] First year, $2.88.

3.—Representative Daily Wages of Employees in and about Coal Mines in Canada, 1922-1928.

NOTE.—The hours per day are 8 for all trades, except for 2 classes in Nova Scotia—surface labourers and machinists, who work 8½ hours a day; previous to 1927, carpenters and blacksmiths worked 8½ hours. Some engineers, pumpmen, firemen, etc., work 7 days per week.

Occupations.	Sept., 1922.	Sept., 1923.	Nov.,[5] 1924.	Sept., 1925.	Sept., 1926.	Sept., 1927.	Sept., 192[illegible]
	$	$	$	$	$	$	$
NOVA SCOTIA—							
Contract miners[1]	5·94	6·84	6·98	6·08	6·25	6·62	6·6[illegible]
Hand miners[2]	4·30	4·30	4·60	4·30	4·15	4·15	4·1[illegible]
Hoisting engineers	4·35	4·35	4·60	4·35	4·15	4·15	4·1[illegible]
Drivers	3·60	3·60	3·90	3·60	3·60	3·60	3·6[illegible]
Bratticemen	3·75	3·75	4·05	3·75	3·65	3·65	3·6[illegible]
Pumpmen	4·00	4·00	4·30	4·00	3·90	3·90	3·9[illegible]
Labourers, underground	3·35	3·35	3·65	3·35	3·35	3·35	3·3[illegible]
Labourers, surface	3·25	3·25	3·50	3·25	3·25	3·25	3·2[illegible]
Machinists	4·35	4·35	4·60	4·35	4·15	4·15	4·1[illegible]
Carpenters	4·00	4·00	4·25	4·00	3·85	3·85	3·8[illegible]
Blacksmiths	4·10	4·10	4·35	4·10	4·00	4·00	4·0[illegible]
ALBERTA[4]—							
Contract miners[1]	9·17	10·00	8·46	7·92	7·10	7·74	7·8[illegible]
Machine miners[2]	8·02	8·02	7·02	5·65–7·00	5·65–7·00	5·65–7·00	5·85–7·[illegible]
Hand miners[2]	7·50	7·50	6·56	5·00–5·40	5·00–5·57	5·00–5·57	5·20–5·[illegible]
Hoisting engineers	7·39	7·39	6·47	5·50–6·00	5·50–6·00	5·50–6·00	5·65–6·[illegible]
Drivers	7·21	7·21	6·31	4·70–4·90	4·70–5·25	4·70–5·25	4·85–5·[illegible]
Bratticemen	7·50	7·50	6·56	5·20–5·40	5·20–5·57	5·20–5·57	5·20–5·[illegible]
Pumpmen	6·89	6·89	6·03	4·25–4·75	4·25–4·75	4·25–4·75	4·40–4·[illegible]
Labourers, underground	6·89	6·89	6·03	4·25–4·45	4·25–4·67	4·25–4·67	4·40–4·[illegible]
Labourers, surface	6·58	6·58	5·76	4·00–4·20	4·00–4·20	4·00–4·20	4·15–4·[illegible]
Machinists	8·14	8·14	7·12	4·70–5·50	4·70–5·77	4·70–5·77	4·85–5·[illegible]
Carpenters	8·14	8·14	7·12	5·30–5·50	5·30–5·77	5·30–5·77	5·45–5·[illegible]
Blacksmiths	8·14	8·14	7·12	5·30–5·50	5·30–5·77	5·30–5·77	5·45–5·[illegible]
VANCOUVER ISLAND[3]—							
Contract miners	7·23	7·14	7·09	6·78	6·99	6·76	6·7[illegible]
Machine miners[2]	5·48	5·46	5·34	4·81	4·81	4·81	4·8[illegible]
Hand miners[2]	5·16	5·13	5·05	4·52	4·52	4·52	4·5[illegible]
Hoisting engineers	6·06	6·04	5·92	5·39	5·39	5·39	5·3[illegible]
Drivers	4·65	4·64	4·58	4·13	4·13	4·13	4·1[illegible]
Bratticemen	4·97	4·95	4·87	4·35	4·35	4·35	4·3[illegible]
Pumpmen	4·47	4·47	4·38	3·96	3·96	3·96	3·9[illegible]
Labourers, underground	4·44	4·43	4·36	3·97	3·97	3·97	3·9[illegible]
Labourers, surface	4·26	4·23	4·11	3·76	3·76	3·76	3·7[illegible]
Machinists	6·03	6·01	5·95	5·40	5·40	5·40	5·4[illegible]
Carpenters	5·45	5·43	5·37	4·83	4·83	4·83	4·8[illegible]
Blacksmiths	5·75	5·72	5·64	5·11	5·11	5·11	5·1[illegible]

[1] Average earnings per day worked on contract. [2] Minimum rate per day when not working on contract per ton, yard, etc. [3] No figures for Chinese employed included. [4] Including also three Crow's Nest Pass field mines in southeastern British Columbia. [5] Rates for November, 1924, are used, as there were d[illegible] putes in Alberta and British Columbia in September.

4.—Rates of Wages and Hours of Labour in Various Trades in Certain Cities of Canada, 1928.

NOTE.—Corresponding figures for 1920-26 will be found at pp. 720-1 of the 1926 Year Book and for 19[illegible] at p. 773 of the 1927-28 Year Book.

Occupation.	Halifax.		Montreal.		Toronto.		Winnipeg.		Vancouver.	
	Wages per hour.	Hours per week.	Wages per hour.	Hours per week.	Wages per hour.	Hours per week.	Wages per hour.	Hours per week.	Wages per hour.	Hou[illegible] per wee[illegible]
1. Building Trades—	$		$		$		$		$	
Bricklayers	·90	44	1·12½	44-50	1·25	44	1·40	44	1·25	44
Carpenters	·66	44	·70–·75	44-60	1·00	44	1·05	44	1·00	44
Electrical workers	·70	44	·65–·75	44–46½	1·00	44	1·00	44	1·00	44
Painters	·66	44	·60–·70	44–49½	·75–·80	44	·85	44	·90	44
Plasterers	·90	44	1·00–1·12½	44–49½	1·25	40	1·35	44	1·25	44
Plumbers	·70	44	·85	44	1·12½	44	1·12½	44	1·12½	40
Sheet metal workers	·70	44	·75	50	1·00	44	·90	44	1·06¼	44
Stonecutters	·90	44	·90	44	1·12½	44	1·20	44	1·12½	40
Labourers	·35	44	·30–·45	50-60	·40–·65	44-60	·40–·50	44-60	·50–·62½	44

4.—Rates of Wages and Hours of Labour in Various Trades in Certain Cities of Canada, 1928—concluded.

Occupation.	Halifax.		Montreal.		Toronto.		Winnipeg.		Vancouver.	
	Wages per hour.	Hours per week.	Wages per hour.	Hours per week.	Wages per hour.	Hours per week.	Wages per hour.	Hours per week.	Wages per hour.	Hours per week.
	$		$		$		$		$	
2. Metal Trades—										
Blacksmiths...	·55–·65	44-50	·60–·70	44-58	·55–·65	44-50	·60–·80	50	·75–·87½	44
Boilermakers..	·55–·65	44-50	·50–·80	47-58	·60–·75	44-48	·60–·74	50	·75–·82½	44
Machinists.....	·55–·65	44-50	·50–·75	44-58	·50–·70	44-54	·60–·74	50	·75—82½	44
Iron moulders..	·70	48	·60–·75	40-55	·55–·70	45-54	·55–·74	44-50	·75–·81¼	44
3. Electric Railways—										
Conductors and motormen....	·55	60	·51	70	·60	48	·59	50	·63	48
Linemen.....	·70	44	·51	60	·72–·78	44	·92½	44	·97	44
Shedmen.....	·42	54	·34–·52	63-70	·54–·56	48	·50½–·58	48	·56–·66	44-48
Electricians....	·57–·70	44	·51–·63	50	·55–·60	44	·62	48	·70	44
Trackmen and labourers.....	·30–·45 per week	44	·35 per week	60	·45–·55 per week	48	·35–·50 per week	44	·46–·54 per week	44
4. Printing Trades—										
Compositors, machine and hand, news...	32·00	48	38.00-42.00	48	45·50	46½	46·00	46	48·00	45
Compositors, machine and hand, job....	30·00	44	36.00-42.00	44-48	35.20-42.00	44-48	39·60	44-48	43·50	44-48
Pressmen, news	30·00	48	37·00	48	44·50	48	45·00	48	48·00	48
Pressmen, job.	31·00	48	36·00	48	38·00	48	39·60	44-48	43·50	44-48
Bookbinders...	35·00	48	33·75	48	36·00	48	35.20-42.00	44-48	42·00	44-48
Bindery girls...	10·00	48	15·00	48	16·80	48	12.00-18.00	44-48	21·00	44-48

Section 2.—Wages and Hours of Labour Under Minimum Wage Boards in Canada.

Subsection 1.—Minimum Wages for Females.

The accompanying table gives summary figures as to the minimum rates of wages in force during 1928 under the orders of the various boards, hours in some cases being governed by hours legislation. In some provinces these orders include regulations as to employment conditions, terms of employment, sanitary conditions, etc., and all provide for variations under license from the Boards to permit lower rates of pay for handicapped employees, etc., and to meet special conditions in the nature of emergencies.

In this table the figures for adult learners and for minors and apprentices are shown in a range covering both classes. There is considerable variation in the rates for such classes in the various industries, and the time allowed for such periods varies considerably, from a few weeks to two years and upwards. The number of learners and apprentices is usually restricted to 25 p.c. of the employees.

The hours of labour are in most provinces restricted by the various factory and similar Acts, and in some provinces the Boards have power to make further restrictions. In Ontario the Act was amended to give the Board authority to state the hours for which the minimum rates were payable and to establish rates for additional hours. The hours for female employees are limited by the factory act to 10 per day and 60 per week, additional hours being permitted only when authorized by the

factory inspector to meet emergencies and under certain limitations. In Quebec the provision is similar, except that in cotton and woollen mills the maximum hours are 10 per day and 55 per week.

The information here given is intended to afford merely a statistical summary

5.—Minimum Wages and Maximum Hours of Labour for Female

Industry or Occupation.	Alberta.				British Columbia (k)			
	Wages per week.		Hours.		Wages per week.		Hours.	
	Adults, experienced.	Minors, learners, etc.	per day	per wk.	Adults, experienced.	Minors, learners, etc.	per day	per wk.
	$	$			$	$		
Factories	12·50	6.00–10.00	9	48	14.00	7.00–12.00	8	48
Dressmaking	12.50	(g)6.00–10 00	9	48	14.00	7.00–13.00	8	48
Millinery	12.50	(g)4.00–10.00	9	48	14.00	7.00–13.00	8	48
Tailoring	12.50	(g)6.00–10.00	9	48	14.00	7.00–13.00	8	48
Fur-sewing	12.50	(g)6.00–10.00	9	48	14.00	7.00–13.00	8	48
Fruit and vegetable canning, etc	12.50	9.00–10.00	9	48	14.40	11.00	10	48
Printing, etc	12.50	7.00–11.00	9	48	14.00	7.00–13.00	8	48
Laundries, etc	12·50	9.50–11.50	9	48	13.50	8.00–12.00	–	48
Retail stores	12 50	7.50–11.00	(m) 9	52	12·75	7.50–12.00	–	48
Hotels, restaurants, etc	14.00–16.50	10.00–14.00	9	48–56	14.00	12.00	–	48
Theatres, amusement places, etc	(p) 14.00	–	9	48	(p) 14.25	–	–	48
Personal service, hairdressing, etc	(p) 14.00	(g) 6.00–12.00	9	48	(p) 14.25	10.00–13.00	–	48
Offices and clerical work	14.00	(g)7.50–12.00	9	48	15.00	11.00–14.00	–	48
Telephone and telegraph	14.00	(g)7.50–12.00	9	48	15.00	11.00–13.00	8	48

*Applicable to cities and certain towns only. †Applicable to certain cities only.

(a) In Manitoba in brickyards and in seasonal and casual employment in industries not otherwise covered a minimum wage of $12 per week or 30 cents per hour is established.

(b) For Ontario the ranges of rates shown for experienced adults cover the various rates set for localities according to population.

(c) Seasonal canneries not included under order.

(d) The Factory Act provides for maximum hours, for female employees, 10 per day and 60 per week.

(e) Textile and knitting factories only.

(f) The Factory Act provides for maximum hours, for female employees, 10 per day and 60 per week except in cotton and woollen mills, 55 per week.

(g) Probationary period without minimum rate.

(h) Winnipeg and vicinity only under order.

(j) In mail order houses and in retail stores in certain cities and towns.

(k) In the fishing industry a minimum rate of $15.50 per week (48 hours) or $32^{7}/_{24}$ cents per hour is set for experienced workers (12 months); $12.75 to $14.75 under one year.

Subsection 2.—Minimum Wages for Male Employees.

The legislation in British Columbia as to conditions for male employees provided for the 8-hour day and 48-hour week in 1923 in the Hours of Work Act, administered by a Board of Adjustment, and in 1925 the Male Minimum Wage Act authorized this Board to fix rates of pay for all male employees except farm labourers, fruit pickers, fruit packers, fruit and vegetable canners and domestic servants. The Board has ordered minimum rates of 40 cents per hour in the lumbering and wood-working industries. In the catering industry 32½ cents per hour for a straigh

of the minimum wages and restricted hours of labour in the provinces and industries affected. While some of the more significant details have been given in footnotes, it has been found impossible to include the information in such form as to indicate any more than the general conditions under these provisions.

Employees, under Orders of Minimum Wage Boards, 1928.

Manitoba (a)				Ontario (b)				Quebec				Saskatchewan†			
Wages per week.		Hours.		Wages per week.		Hours.		Wages per week.		Hours.		Wages per week		Hours.	
Adults, experienced.	Minors, learners, etc.	per day	per wk	Adults, experienced.	Minors, learners, etc.	per day	per wk.	Adults, experienced.	Minors, learners, etc.	per day	per wk.	Adults experienced.	Minors learn-etc.	per day	per wk.
$	$			$	$			$	$			$	$		
11.00–12.00	8.00–11 00	9	48–50	(c)10.00-12.50	6.00–10.00	–	(d)	(e)10.00-12.00	(e) 6.00-10.00	–	(f)	14.00	7.50–11.50	–	48
(h)12.00	(g)6.00-11.00	(m)	50	(v)	–	–	–	–	–	–	–	(j)15.00	(g)3.00-12.00	–	49–51
12.00	(u) 5.00-10.00	(m)	50	(r)10.00-12.50	(r)6.00-10.00	–	–	–	–	–	–	(j)15.00	(g)3.00-12.00	–	49–51
12.00	6.00–11.00	9	50	(v)	–	–	–	–	–	–	–	(j)15.00	(g)3.00-12.00	–	49–51
(h)12.00	8.00–10.50	9	48	(v)	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	(c)10.00-12.50	6.00–10.00	–	(d)	–	–	–	–	–	–	–	–
12.00	8.00–11.00	9	48	10.00–12.50	6.00–10.00	–	(d)	9.00–12.50	6.00–11.00	–	(f)	14.00	7.50–11.50	–	48
(h)12.00	9.00–10.50	9	50	11.00–12.00	7.00–11.00	–	(l)	9.00–12.00	6.00–10.50	–	–	14.00	9.50–11.50	–	48
12.00	7.00–11.00	(m)	48–49	8.00–12.50	6.00–11.00	–	–	–	–	–	–	(j)15.00	7.00–13.50	–	49–51
12.50	–	10	48	10.00–12.50	–	–	(n)	–	–	–	(o)	13,00 14.00	11.00–12.00		50–56
(h)12.00	–	9	48	11.00–12.50	–	–	(q)	–	–	–	–	–	–	–	–
12.00	(g)8.00-11.00	(m) 10	48	(s)12.00-12.50	6.00–10.00	–	–	–	–	–	–	15.00	10.00–12.00	10	50
(h)12.50	8.00–11.50	8	44	8.00–12.50	6.00–11.00	–	–	–	–	–	–	–	–	–	–
–	–	–	–	(t)7.00-12.50	5.00–11.00	–	–	–	–	–	–	–	–	–	–

(l) Rate applies to work between 44 and 50 hours per week, hours in excess of 50 to be paid at not less than a rate based on 50 hours per week; hours under 44 at a rate based on normal hours in establishment.
(m) Longer working time permitted on Saturdays, etc., and sometimes in certain months.
(n) Full minimum rate for 36 hours or longer up to 50 hours for time under 36 hours and over 50 hours, 20 to 25 cents per hour, according to population; order applies only to localities of 4,000 and up.
(o) Kitchen help $11 per week of six days or $12 per week of seven days; 35 cents per hour.
(p) Including garages, gasolene service stations, shooting galleries, elevator service, etc.; in British Columbia driving vehicles; ushers, cloak-room attendants, etc., special provision for broken and part time.
(q) Full minimum rate for 40 hours or more worked; 25 to 30 cents per hour for work less than 40 hours.
(r) Custom millinery in localities of 4,000 population and up.
(s) Cities of 30,000 and up.
(t) Telephone only; in localities of 4,000 and up and those having 200 or more telephone subscribers.
(u) Probationary period in departmental stores with minimum of $6 thereafter.
(v) In establishments classified as factories, covered by factory orders.

shift and 35 cents per hour for a split shift have been ordered in establishments where the employer provides meals, and 40 cents per hour for a straight shift and 42½ cents per hour for a split shift where meals are not provided. The validity of the orders of this Board came before the courts during 1928 (*Labour Gazette*, November, 1928, p. 1310).

In Alberta legislation in 1926 provides that no male may be employed at a lower wage than the minimum rate for female employees in the same class of work, except in the case of apprentices under indenture approved by the Commissioner of Labour, who is the Secretary of the Minimum Wage Board.

Section 3.—Cost of Living of Wage Earners.

An index number of the cost of living in working men's families has been computed by the Department of Labour since 1913, and is published monthly in the *Labour Gazette*. This index is specifically designed for the purpose of measuring the trends of the cost of living for certain wage-earning classes with a somewhat lower standard of living than that which is measured by the Bureau of Statistics index number of retail prices, shown on page 780 of the present volume. This wage-earner's index number is used extensively in the fixation of "fair wages" on Government contracts and in the settlement of industrial disputes. An abridgement of this index is presented in Table 6.

6.—Changes in the Cost of Living in Canada from 1913 to 1928[1].

(Average prices in 1913=100).

Months and Years.	Food.	Fuel and Light.	Rent.	Cloth-ing.	Sund-ries.	All items.
Dec. 1914	108	98	97	103	100	10
Dec. 1915	111	96	94	115	110	10
Dec. 1916	138	109	95	136	122	12
Dec. 1917	167	125	102	158	134	14
Dec. 1918	186	146	111	185	151	16
Dec. 1919	201	148	122	210	164	17
Mar. 1920	218	157	124	251	166	19
June 1920	231	168	137	251	169	20
Sept. 1920	217	189	138	232	171	19
Dec. 1920	202	200	142	232	173	19
Mar. 1921	180	191	142	193	173	17
June 1921	152	179	149	193	173	16
Sept. 1921	161	174	149	177	173	16
Dec. 1921	150	172	150	177	173	16
Mar. 1922	144	169	151	165	173	15
June 1922	139	167	154	165	174	15
Sept. 1922	140	179	155	162	174	15
Dec. 1922	142	177	165	162	174	15
Mar. 1923	147	178	156	163	173	15
June 1923	139	169	158	163	173	15
Sept. 1923	142	171	158	164	172	15
Dec. 1923	146	172	158	164	171	15
Mar. 1924	144	169	158	160	171	15
June 1924	134	163	158	160	170	15
Sept. 1924	140	163	158	159	169	15
Dec. 1924	144	162	158	159	169	15
Mar. 1925	146	162	158	160	168	15
June 1925	142	159	158	160	168	15
Sept. 1925	147	160	158	159	167	15
Dec. 1925	157	166	158	159	166	16
Mar. 1926	156	166	158	157	166	15
June 1926	151	162	156	157	166	15
Sept. 1926	149	160	156	157	166	15
Dec. 1926	152	162	156	157	166	15
Jan. 1927	155	161	156	157	166	15
Feb. 1927	153	161	156	157	166	15
Mar. 1927	151	161	156	157	166	15
April 1927	147	160	156	154	166	15
May 1927	147	159	156	154	166	15
June 1927	148	158	156	154	166	15
July 1927	149	158	156	154	166	15
Aug. 1927	149	158	156	154	166	15
Sept. 1927	148	158	156	155	166	15
Oct. 1927	150	158	156	155	166	15
Nov. 1927	151	158	156	155	166	15
Dec. 1927	152	158	156	155	166	15
Jan. 1928	152	159	156	155	166	15
Feb. 1928	150	159	156	155	166	15
Mar. 1928	149	159	156	155	166	15
April 1928	148	159	156	157	166	15
May 1928	147	158	157[2]	157	166	15
June 1928	146	158	157[2]	157	166	15
July 1928	147	157	157[2]	157	166	15
Aug. 1928	151	157	157[2]	157	166	15
Sept. 1928	152	157	157[2]	157	166	15
Oct. 1928	154	157	157[2]	157	166	15
Nov. 1928	154	157	157[2]	157	166	15
Dec. 1928	154	157	157	157	166	15

[1]The figures for "all items" were calculated by giving the following weights to each group: Food 35 p.c.; Fuel 8 p.c.; Rent 18½ p.c., Clothing 18½ p.c. and Sundries 20 p.c.

[2]Revised.

CHAPTER XX.—PRICES.

Commodity prices naturally fall into two main divisions—wholesale prices and retail prices. Because the number of wholesale traders is smaller than that of retail traders, buying and selling by carefully defined grades more prevalent, and price ranges at any particular time and place much narrower, it would appear that wholesale prices and their fluctuations are more easily and accurately ascertainable than retail prices. But this advantage is largely offset by certain difficulties inherent in the nature of index numbers of wholesale prices. The making of an index number of wholesale prices for general purposes requires the inclusion of a much larger range of commodities than is necessary for a retail or cost of living index. Moreover, wholesale commodities are in all stages from raw material to finished product, while retail prices are concerned only with the latter. At each stage in the evolution of a commodity we are frequently confronted with several grades, and this situation is complicated by the fact that grades undergo changes in the course of time. Hence, to secure from month to month and year to year quotations which give accurate continuity is a task in which eternal vigilance is the price of success. The maker of wholesale index numbers must be assiduous in acquiring and keeping up to date a knowledge of grades and qualities, and in dealing with a very large list of commodities this is a difficult task. This knowledge has constantly to be applied to quotations taken from trade papers and other journals, in which many inaccuracies are found. With retail prices, the question of grades is not quite so involved and in some cases it is sufficient to obtain quotations on the basis of "the kind principally sold".

Another pitfall to be avoided in dealing with wholesale quotations is that relating to the conditions of sale, whether the price is f.o.b., delivered, c.i.f. or otherwise. Continuity must be maintained, but trade journals are often inadequate in this respect. In the case of retail prices, some account may be taken of service rendered to the purchaser or its curtailment, as in a "groceteria" or a "cash and carry" store, but this is not imperative if predominant prices are used.

Wholesale transactions are generally between expert buyers and sellers, dealing on purely business principles. Accordingly, wholesale prices conform approximately to the operation of the principle of supply and demand, and are thus more valuable as an index to the current state of business. Retail prices, on the other hand, are largely governed by custom and often do not respond to the fluctuations in wholesale prices. Further, small fluctuations in wholesale prices are not fairly reflected in retail prices because of the limitations of the currency in representing small quantities of commodities. Again, retail prices vary considerably for the same commodity in different parts of the same city, owing to differences in the service rendered, in location of stores and in classes of customers. In the collection of retail price statistics it is necessary to take quotations from the most representative class of retailers, serving the masses of the people.

Further, since wholesale prices are determined by the business situation of the moment, while retail prices are largely determined by custom and change comparatively slowly, there exists what is technically called a "lag" between the two, retail prices not showing changes in fundamental business conditions until some time after wholesale prices. Thus, while wholesale prices in Canada reached the peak in May, 1920, and commenced to decline in June, retail prices reached the peak in July, 1920, and began to decline in August.

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Section 1.—Wholesale Prices of Commodities.

Subsection 1.—Historical Review of Canadian Prices.

Until within the last year or so, the index number of wholesale prices in Canada did not go back beyond 1890. However, it has now been extended backward to 1867 on the 1913 base, the added quarter of a century including a very interesting period to students of price statistics. The average index numbers for the 61 years since Confederation are given in Table 1. In that table will be noted the high prices of 1867, immediately following the close of the American Civil War and the Austro-Prussian War of 1866, and the tendency to declining prices in the years immediately following. Prices went up again after the Franco-German War of 1871 and reached a high point in 1872 and 1873, but the crisis of the latter year resulted in a decline. This declining trend persisted fairly steadily throughout the 25 years from 1872 to 1897 and was featured by an inadequate increase in the supply of gold. The gold supply of the world did not increase as rapidly as the supply of commodities, consequently more commodities could be secured for a given amount of gold. This disproportion between the world's supply of gold and the world's supply of commodities resulted in disputes and political agitation in debtor communities, culminating in the United States in the free silver campaign of 1896, when the Democratic party adopted as its program the free coinage of silver dollars on the basis of 16 to 1, which was about the relation between the values of silver and gold prior to 1870. This program would have permitted debtors to pay off their obligations in silver dollars whose current value in gold was only 50c. Though the Democrats were defeated, relief for the debtors was already on the way as a result of the great discoveries of gold in South Africa and the discovery of the cyanide process of obtaining gold from low grade ore. The result was that the world's production of gold increased very rapidly from about 1890 down to the outbreak of the Great War, with the natural consequence of rising general prices as soon as the volume of the new gold became a large part of the total stock. Thus prices increased from the low point of 75·6 in 1897 to 100 in 1913 and 102·3 in 1914. Afterwards, the Great War, both through the scarcity of commodities which it occasioned and the inflation of the currency which it produced, drove prices rapidly upward to a maximum of 243·5 in 1920, followed by a rapid collapse to 152·0 in 1922. This was succeeded by a slight increase to 160·3 in 1925, but the tendency since 1925 has been downward, and the 1928 average of 149·7 is the lowest since 1916.

Opinions differ as to the probable course of wholesale prices in the future, but reductions in taxation, combined with new economies due to improved methods of distribution and labour saving inventions, would lead one to believe that the general trend of wholesale prices will be downward, provided that peace continues to prevail generally throughout the world.

1.—Annual Index Numbers of Wholesale Prices in Canada, 1867-1928.

(1913=100).

1867	133·0	1883	106·0	1899	81·4	1915	109·9
1868	128·7	1884	100·6	1900	85·8	1916	131·6
1869	126·5	1885	92·7	1901	84·5	1917	178·5
1870	123·5	1886	90·7	1902	86·2	1918	199·0
1871	124·5	1887	91·9	1903	86·9	1919	209·2
1872	135·7	1888	93·5	1904	87·0	1920	243·5
1873	133·8	1889	92·6	1905	87·8	1921	171·8
1874	129·0	1890	93·0	1906	92·6	1922	152·0
1875	120·7	1891	91·4	1907	96·2	1923	153·0
1876	116·6	1892	86·2	1908	90·9	1924	155·2
1877	115·1	1893	85·2	1909	91·4	1925	160·3
1878	104·3	1894	80·6	1910	94·3	1926	156·2
1879	101·0	1895	79·6	1911	95·0	1927	151·6
1880	112·9	1896	76·0	1912	99·5	1928	149·7
1881	109·9	1897	75·6	1913	100·0		
1882	112·1	1898	77·8	1914	102·3		

Subsection 2.—The New Index Number on a Post-war Base (1926).

The official Canadian index number of wholesale prices computed by the Dominion Bureau of Statistics has been revised and calculated with the year 1926 as base. The number of price series included has been increased from 236 to 502, some of the latter being composite prices as, for example, milk, which consists of the weighted average of 15 prices collected at representative centres all over the Dominion. New statistical materials have made possible refinements and extensions of the weighting system previously used, adding to the accuracy of the index numbers, particularly in the case of groups and sub-groups. A detailed explanation of the methods now used in computing the index and the reasons for their adoption follow.

Base Year.—Since the nations of the world and along with them their currency systems have arrived, or are in the process of arriving, at a condition of post-war "normalcy", comparisons with pre-war years become less important and interesting, and the need arises of placing index numbers upon some post-war base which will serve as a suitable background for future movements. This constitutes the first reason for changing the base of the index number. A second important reason lies in the necessity of a periodical revision of index numbers so as to take account of current changes in the kind, quality and weighting of the commodities used in its computation. Ten years ago the maker of index numbers did not have to consider artificial silk, but to-day this commodity must be given an important place in the textile group. Again, such commodities as newsprint paper, copper, wheat, etc., must be given a greater weight in a Canadian index based on current conditions than in one based on 1913 conditions. So many changes take place in the production, consumption and exchange of commodities in a decade that a periodical revision of index numbers based upon them is a necessity.

It is preferable that a base period should, if practicable, consist of an average of several years, but the abnormal conditions which prevailed during and after the war furnish insuperable obstacles to a base of this character. Prior to 1925 the disparity between farm prices and the prices of manufactured goods was an abnormal factor in the prices situation. That year, however, owing largely to the marked rise in grain prices, the index for which rose from 143·9 in 1924 to 180·3 in 1925, developed a price level which was unusually high for the period. It was

finally decided to take as base the year 1926, the price level for which was about halfway between that for 1925 and 1927. This is in effect practically equivalent to an average of the three years 1925, 1926 and 1927. The Bureau was also influenced in its choice of 1926 as base by the fact that the index numbers computed by the United States Bureau of Labour Statistics are on the 1926 base, and it was desirable, owing to the close interrelation of price movements in the two countries, to construct the index numbers on similar principles for comparative purposes.

Number of Price Series Included.—The new index numbers for all commodities show very much the same movement as the old series. It was, however, mainly for the purpose of improvements in groups and sub-groups that the number of price series included in the index was increased from 236 to 502. By this large increase in the number of items included it was possible to make many groups much more comprehensive and representative. Building and construction materials, for example, are now represented by a larger range of commodities, as well as by a more geographically complete series of prices. The number of price series in this group was increased from 32 to 90. Similar improvements have been made in a great many other groups and sub-groups. Chemicals and allied products now include 73 price series, as compared with 13 in the old index. Non-metallic minerals and their products are represented by 73 price series in the new index and 16 in the old. These changes in the number of price series have added greatly to the usefulness of the index numbers as regards groups and sub-groups, which furnish what may be called subsidiary index numbers for special purposes.

Formula.—Actual calculations of the index number were made according to the same formula as before. This formula, which produces the aggregative index, is now used for the purpose of calculating many of the most important index numbers and for a comparison of three or more periods on a fixed base has the support of many eminent index number makers. It is expressed as follows: $\sum \frac{P_1 Q_0}{P_0 Q_0}$.

Weighting.—Weighting must of course conform to the formula used, but many variations are possible within the system. Quantity exchanged is the basis of the Bureau's weight, that is to say, production and import figures are used to arrive at a weight, but as regards production only quantities actually marketed are considered. In arriving at the weight for any commodity duplication is avoided by making deductions, where possible, when the commodity is included again in another form, as for example in the case of wheat and flour. An improvement in weighting has been made by working out a threefold system, *viz.*, weights for individual commodities, sub-groups and finally groups of commodities. In the first place the commodities in each sub-group are weighted in such a manner as to arrive at the most accurate index for that sub-group. Such weights, however, will not do for a main group which may include another sub-group containing the same commodity in a different form. For this reason the sub-group index numbers are again weighted by sub-group weights (values worked into percentages). Another reason for the sub-group weights is the fact that in each sub-group only representative commodities are included. In order to give each sub-group sufficient weight in arriving at a group index it must be weighted by a figure which represents as far as possible the total value of all commodities which might be included in the sub-group. Finally, group index numbers are weighted in arriving at the index number for all commodities, so as to ensure that no group index will wield a disproportionate influence

upon the final result. The group weights represent the estimated total importance in exchange of all commodities which can be classified in that particular group.

For example, the index number for the grains sub-group is weighted by the aggregate value of all grains marketed, less the value of grains shown elsewhere in the form of other commodities, such as flour, rolled oats, linseed oil, etc. For this sub-group the weight is 35·38 p.c. of the total value of the whole vegetable products group.

Quantities and values used for weights are, in the main, for the year 1926, but where weights for that year were not deemed to be representative, conditions in other years were considered. Sometimes an average of several representative years was taken. There was no attempt made to adhere rigidly to one hard and fast rule of weighting. In many cases modifications were made with the object of adopting the weights likely to obtain the most satisfactory results. Final group weights are as follows:

Vegetables and their products	30
Animals and their products	16
Fibres, textiles and textile products	9
Wood, wood products and paper	15
Iron and its products	12
Non-ferrous metals and their products	6
Non-metallic minerals and their products	9
Chemicals and allied products	3
	100

Classification of Commodities.

These new index numbers will be issued in the same three classifications as the old index, *viz.*, component materials, purpose and origin. The number of commodities included in each group in the chief component material classification is shown below.

Price Series Included in the New and Old Index Numbers of Wholesale Prices.

	New.	Old.
Vegetables and their products	124	67
Animals and their products	74	50
Fibres, textiles and textile products	60	28
Wood, wood products and paper	44	21
Iron and its products	39	26
Non-ferrous metals and their products	15	15
Non-metallic minerals and their products	73	16
Chemicals and allied products	73	13
	502	236

The Price Movement in 1928.—The general level of prices in 1928 moved downward, the Bureau's weighted index number for 236 commodities being 149·7 as compared with 151·6 in 1927 on the 1913 base, while the new weighted index number

for 502 commodities was 96·5 in 1928 as compared with 97·7 in 1927 on the 1926 base. This is the lowest point the level of wholesale prices has reached since 1916 and represents on the 1913 base a reduction of 93·8 points from the peak year 1920, when the index was 243·5.

Three of the eight main groups moved upward and five downward as compared with 1927. Vegetables and their products fell from 98·3 to 93·2 on the new base. Declines were practically general, those for wheat, flour and potatoes exerting the greatest influence. Animals and their products advanced from 101·9 to 108·5, the outstanding movement being higher prices for livestock and meats, stimulated by good export demand from the United States. Fibres, textiles and textile products rose from 93·7 to 94·3, owing mainly to higher cotton and wool prices. Iron and its products dropped exactly 3·0 points, as did chemicals and allied products. Non-ferrous metals fell from 91·1 to 89·9. Wood, wood products and paper fell 4·2 points, while non-metallic minerals and their products fell 3·5 points.

The general price index numbers on the new base are given by months from 1920 to 1928 in Table 2, while price index numbers on the new base are given by groups on the chief component material classification for the years from 1913 to 1928, and for the months of 1926 to 1928 in Table 3. Index numbers on the purpose classification are presented in Table 4. New index numbers on the origin classification were not available at the time of going to press.

2.—Weighted General Price Index Numbers, by Months, 1920-1928.

(1926=100.)

Months.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
January	149·4	128·4	97·1	97·0	100·4	106·0	103·0	97·8	96·9
February	152·9	122·3	98·3	97·1	100·4	105·4	102·1	97·6	96·7
March	154·5	119·1	98·3	98·3	98·8	103·5	101·3	97·3	97·1
April	160·7	114·9	98·4	102·4	96·7	100·2	101·2	97·5	98·3
May	164·3	109·2	98·5	100·4	96·4	101·7	100·2	98·5	97·9
June	163·3	105·3	97·8	99·6	97·5	101·5	100·2	98·9	97·
July	164·1	104·8	98·7	98·3	98·5	101·2	100·2	98·6	96·
August	160·2	106·0	97·1	98·3	100·4	101·7	99·1	98·3	95·
September	157·2	103·5	94·4	99·0	98·5	100·0	98·5	97·1	95·
October	151·3	99·6	94·8	98·0	100·5	99·9	98·1	97·2	95·
November	143·7	98·3	97·2	98·1	101·0	103·2	97·6	96·9	94·
December	139·1	96·4	98·0	98·3	103·0	104·7	97·9	97·3	94·
Yearly average	**155·9**	**110·0**	**97·3**	**98·0**	**99·4**	**102·6**	**100·0**	**97·7**	**96·**

3.—Annual Weighted Index Numbers of Wholesale Prices of Commodities, by Groups (Chief Component Material Classification), 1913-1928, with Monthly Figures for 1926-1928.

(1926=100.)

Years and Months.	Vegetable Products.	Animals and their Products.	Fibres, Textiles and Textile Products.	Wood, Wood Products and Paper.	Iron and its Products.	Non-Ferrous Metals and their Products.	Non-Metallic Minerals and their Products.	Chemicals and Allied Products.	All Commodities.
Number of Commodities.	124	74	60	44	39	15	73	73	502
1913	58·1	70·9	58·2	63·9	68·9	98·4	56·8	63·4	64·0
1914	64·8	72·6	56·9	60·3	67·3	94·7	53·7	65·3	65·5
1915	75·6	74·0	58·3	56·5	73·9	106·9	52·7	68·1	70·4
1916	87·0	85·0	77·6	64·0	104·6	135·1	58·0	78·0	84·3
1917	124·5	110·4	114·6	79·8	151·8	143·9	71·6	98·1	114·3
1918	127·9	127·1	157·1	89·1	156·7	141·9	82·3	118·7	127·4
1919	136·1	140·8	163·8	109·6	139·1	133·5	93·0	117·5	133·9
1920	167·0	145·1	176·6	154·4	168·4	135·5	112·2	141·5	155·9
1921	103·5	109·6	96·0	129·4	128·0	97·0	116·6	117·0	110·0
1922	86·2	96·0	101·7	106·3	104·6	97·3	107·0	105·4	97·3
1923	83·7	95·0	116·9	113·0	115·8	95·3	104·4	104·4	98·0
1924	89·2	91·8	117·9	105·9	111·0	94·8	104·1	102·5	99·4
1925	100·6	100·3	112·5	101·6	104·5	103·9	100·3	99·6	102·6
1926	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
1927	98·3	101·9	93·7	98·5	96·2	91·1	96·5	98·3	97·7
1928	93·2	108·5	94·3	98·7	93·2	89·9	92·5	95·3	96·5
1926.									
January	105·1	102·5	104·3	100·6	100·8	106·5	100·6	100·9	103·0
February	102·7	101·9	103·6	100·7	100·8	105·5	101·3	101·1	102·1
March	99·9	103·8	103·1	100·4	100·6	103·4	101·7	99·9	101·3
April	103·8	100·7	100·7	100·3	100·7	98·5	98·7	99·4	101·2
May	102·6	98·0	100·1	100·2	100·4	97·3	98·5	99·7	100·2
June	100·6	101·6	99·7	100·1	100·0	98·5	99·0	100·0	100·2
July	100·8	99·9	101·1	100·6	99·5	99·9	99·1	100·4	100·2
August	98·6	97·9	99·7	100·1	99·3	100·5	99·2	99·7	99·1
September	96·2	98·8	99·5	100·2	99·4	99·6	99·2	100·3	98·5
October	96·9	98·3	96·6	98·9	99·7	98·0	99·2	99·7	98·1
November	93·3	97·3	96·5	98·8	99·3	96·3	99·4	99·5	97·6
December	95·0	100·1	96·2	99·0	99·3	95·6	103·1	99·3	97·9
1927.									
January	94·6	101·5	95·4	99·1	98·3	94·3	102·5	98·9	97·8
February	95·7	100·0	94·7	98·4	97·4	94·0	102·4	99·3	97·6
March	96·0	100·8	93·0	98·5	97·5	94·5	98·7	99·2	97·3
April	96·8	102·1	92·4	98·1	97·3	92·6	98·1	98·1	97·5
May	101·8	101·2	92·5	97·9	96·7	90·9	96·3	98·5	98·5
June	104·7	99·7	92·5	97·9	96·6	90·3	94·1	98·5	98·9
July	104·1	98·7	92·2	98·8	96·5	89·7	93·9	98·5	98·6
August	102·1	100·4	92·7	98·8	96·3	90·2	94·0	99·5	98·3
September	97·6	102·8	93·1	98·7	95·6	89·0	93·1	97·9	97·1
October	96·6	103·9	95·5	98·6	94·9	88·2	95·0	97·7	97·2
November	96·0	104·3	95·1	98·5	94·1	88·6	94·7	97·3	96·9
December	95·1	107·6	95·2	98·6	94·1	90·6	94·7	97·4	97·3
1928.									
January	95·2	106·9	94·5	98·4	93·7	89·9	92·8	96·9	96·9
February	95·4	105·6	94·3	98·5	94·1	88·8	93·3	96·2	96·8
March	98·1	107·0	93·3	98·8	94·1	88·6	93·0	96·1	97·7
April	101·6	104·3	93·5	98·9	94·0	88·7	92·5	95·4	98·3
May	101·5	102·4	93·7	99·0	94·0	89·9	91·1	95·4	97·9
June	96·6	107·0	93·9	99·1	92·7	90·2	91·3	95·2	97·1
July	92·8	109·1	94·2	98·2	92·7	89·5	91·3	95·2	96·2
August	88·6	112·0	93·8	98·6	92·5	89·7	92·2	95·1	95·4
September	87·1	114·5	93·9	99·0	92·6	89·7	92·4	94·6	95·5
October	88·2	112·2	92·9	98·5	92·5	90·5	92·6	94·6	95·4
November	87·5	110·8	92·2	98·6	92·8	91·2	92·8	94·3	94·9
December	86·5	109·1	93·2	98·3	93·0	92·3	93·4	94·3	94·5

4.—Index Numbers of Wholesale Prices of Commodities, Classified according to Purpose, by Yearly Averages, 1913-28, and by Months, 1926-28.

(1926=100.)

Years and Months.	Consumers' Goods.			Producers' Goods.					All Commodities
	All.	Foods, Beverages and Tobacco.	Other.	All.	Producers' equipment.	Producers' Materials			
						All.	Building and Construction.	Manufacturers'.	
No. of price series prior to 1926	98	74	24	148	16	132	32	100	236
No. of price series 1926-1928	204	116	88	351	22	329	97	232	504
1913	61·9	61·8	62·2	67·4	55·1	69·1	67·0	69·5	64·0
1914	62·7	65·2	59·7	69·7	52·0	72·1	62·9	74·3	65·5
1915	65·6	68·6	61·8	77·0	53·1	80·2	60·5	84·8	70·1
1916	74·7	81·7	65·8	88·1	55·7	92·5	69·6	97·9	84·3
1917	95·4	109·4	77·6	119·6	69·6	126·3	87·6	135·5	114·3
1918	107·0	119·4	91·4	131·5	80·4	138·3	100·9	147·2	127·4
1919	118·7	128·2	106·7	139·0	90·7	145·5	117·3	152·2	133·9
1920	140·0	151·0	126·3	163·1	108·6	170·4	144·0	176·6	155·9
1921	108·0	105·4	111·4	112·8	113·8	112·6	122·8	110·2	110·0
1922	95·1	90·2	101·4	99·1	104·1	98·2	108·7	95·8	97·3
1923	93·7	91·2	97·0	97·8	102·5	97·1	111·9	93·7	98·0
1924	93·2	90·4	96·8	99·5	102·7	99·0	106·6	97·5	99·4
1925	97·2	97·7	96·5	104·9	99·2	105·5	102·9	106·2	102·6
1926	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
1927	95·9	99·5	93·5	98·5	101·1	98·2	96·1	98·6	97·7
1928	95·7	99·8	92·9	96·6	93·7	96·9	97·4	96·6	96·5
1926.									
January	103·1	102·9	103·2	103·3	102·7	103·4	102·3	103·6	103·0
February	101·8	102·0	101·7	102·5	102·9	102·4	102·4	102·4	102·1
March	102·0	102·4	101·7	100·8	103·3	100·5	101·4	100·3	101·3
April	101·4	102·2	100·8	100·7	96·9	101·1	100·6	101·2	101·2
May	100·4	99·7	100·9	101·1	97·2	101·5	99·7	100·7	100·2
June	100·8	100·1	101·2	100·3	96·9	100·7	99·5	101·0	100·2
July	99·5	99·3	99·6	101·3	96·8	101·8	100·0	102·2	100·2
August	98·9	97·8	99·6	99·6	97·1	99·9	100·0	99·9	99·1
September	98·5	97·1	99·5	98·5	97·1	98·6	100·0	98·3	98·5
October	98·0	97·5	98·3	97·9	97·4	97·9	98·1	97·9	98·1
November	97·3	97·1	97·5	97·2	100·8	96·8	97·9	96·5	97·6
December	97·3	99·0	96·1	97·8	110·4	96·4	97·8	96·1	97·9
1927.									
January	97·2	99·2	95·9	97·6	110·0	96·2	96·8	95·9	97·8
February	96·9	98·6	95·8	98·0	110·1	96·6	96·3	96·6	97·6
March	95·8	98·7	93·9	97·9	106·1	97·0	96·2	97·1	97·3
April	95·9	99·4	93·6	97·9	100·9	97·6	95·7	97·9	97·5
May	95·9	100·6	92·7	100·3	102·2	100·1	95·6	101·0	98·5
June	95·8	101·1	92·2	100·8	97·4	101·2	95·5	102·3	98·9
July	94·9	99·4	91·9	101·0	97·2	101·4	95·7	102·3	98·8
August	95·0	99·5	92·0	100·1	97·9	100·3	97·0	100·9	98·3
September	95·1	99·6	92·1	97·5	94·7	97·8	96·5	98·0	97·1
October	96·0	100·0	93·4	97·3	99·8	97·0	95·9	97·0	97·2
November	95·7	99·7	93·0	97·2	99·1	97·1	95·5	97·3	96·9
December	96·2	100·8	93·1	97·9	99·3	97·7	95·7	98·0	97·3
1928.									
January	95·6	99·6	93·0	98·0	94·8	98·3	95·2	98·7	96·9
February	95·6	99·4	93·0	97·7	95·9	97·9	95·4	98·2	96·8
March	95·9	100·6	92·7	99·0	95·7	99·4	93·0	99·9	97·7
April	95·9	100·2	93·0	100·7	95·7	101·2	96·2	102·1	98·3
May	95·1	98·4	92·9	101·0	92·4	101·9	93·3	102·9	97·9
June	95·7	99·5	93·2	98·8	92·4	99·5	93·5	99·9	97·1
July	95·4	100·0	92·4	96·8	92·4	97·3	97·9	97·0	96·2
August	96·2	101·5	92·7	94·2	92·8	94·4	93·1	93·4	95·4
September	96·6	102·0	93·0	93·6	92·8	93·7	93·6	92·4	95·5
October	95·9	100·8	92·7	93·6	92·8	93·7	93·0	92·5	95·4
November	95·2	99·3	92·5	93·3	92·8	93·3	93·3	92·0	94·9
December	94·6	97·7	92·5	93·3	94·5	93·2	93·1	91·9	94·5

Section 2.—Retail Prices of Commodities.

The Dominion Bureau of Statistics, in addition to wholesale prices, collects retail prices in some 60 Canadian cities for foods, fuel and lighting, clothing and miscellaneous items, including data concerning the costs of various services. Prices are collected by the Bureau for over 80 food commodities; these are averaged along with certain prices received through agents of the Department of Labour, and are inserted monthly in the "Labour Gazette." The fuel group includes prices for coal and rates for electricity and gas. Information is collected for 55 clothing items and percentage price changes are computed therefrom. Miscellaneous items include prices for toilet articles, medicines, tobacco, books, newspapers, furniture and house furnishings; also the costs of services, including data for hospitals, laundries, barbers, street-car transportation, doctors, telephones and entertainment. Data on rentals are collected by the Department of Labour.

Index Numbers of Canadian Retail Prices and Cost of Living.—The index numbers of retail prices, rents and costs of services, hitherto calculated on the 1913 base, have been revised and recalculated on the base 1926 = 100. This is in accordance with the general policy of the Bureau in revising the basis of index number calculations. These index numbers are so constructed as to show the trend of the cost of living for an average middle class family, with an expenditure of about $2,500 per annum. In revising the data sixteen items were added to the clothing group. Rental data were changed to include apartments and flats as well as houses, and higher grades of dwellings than formerly were included. Owing to the increasing use of coke, it was added to the fuel and lighting group. Miscellaneous items were increased from 71 to 130, the additions including dishes, furniture, hardware, insurance, books and education, dentists' services, cost of motor operation and supplies. In all, the index includes 245 separate items or groups of items as compared with 161 in the old index. Prior to 1926 only figures on the old list of items are available, but these have been recalculated to the 1926 base (Table 5).

This index number has for its object the measurement of the general movement of retail prices and living costs in the *Dominion as a whole.* It is constructed in such a manner as to make possible comparisons with other general index numbers, such as the index of wholesale prices. *It is not intended to be a measurement of the cost of living of any particular class or section in the Dominion.* Costs of living show considerable diversity in the various sections of the Dominion, and wage disputes in any particular section necessitate a special review for the section concerned. For the purpose, however, of showing broad general tendencies in living costs over the Dominion as a whole, the Bureau's index number of retail prices, rents and costs of services is eminently suitable.

It will be seen from Table 6 that the general index shows a slight rise in 1928 as compared with 1927, being 98·5 in 1927 and 99·1 in 1928. Foods and rents were higher, clothing and miscellaneous items practically unchanged on the average, and fuel and lighting lower.

5.—Index Numbers of Canadian Retail Prices, 1914–1926, Changed to New Base 1926=100.

Years.	Food Index.	Fuel Index.	Rent Index.	Clothing Index.	Sundries Index.	Total Index.
1914	68·9	64·5	62·2	63·9	66·2	66
1915	69·5	63·2	60·3	69·6	66·9	67
1916	77·5	64·5	60·9	79·7	70·2	72
1917	100·0	71·7	65·4	93·7	76·8	85
1918	114·6	78·9	69·2	109·5	86·1	97
1919	122·5	86·2	75·6	125·9	95·4	107
1920	141·1	102·6	86·5	153·2	104·0	124
1921	107·9	109·2	94·2	124·7	106·0	109
1922	91·4	104·6	98·1	105·7	106·0	100
1923	92·1	104·6	100·6	104·4	105·3	100
1924	90·7	102·0	101·3	101·9	103·3	98
1925	94·7	100·0	101·3	101·9	101·3	99
1926	100·0	100·0	100·0	100·0	100·0	100

6.—Index Numbers of Retail Prices, Rents and Costs of Services, 1926, 1927, 1928 and January-April, 1929, (1926=100)

Years and Months.	Food Index.	Fuel Index.	Rent Index.	Clothing Index.	Sundries Index.	Total Index Number
1926.						
January	102·6	102·5	100·0	100·6	100·0	10
February	101·9	101·5	100·0	100·6	100·0	10
March	102·0	101·9	100·0	100·6	100·0	10
April	100·7	100·7	100·0	100·6	100·0	10
May	100·5	100·9	100·0	100·6	100·0	10
June	99·6	98·9	100·0	100·6	100·0	9
July	100·1	98·6	100·0	100·6	100·0	10
August	100·4	98·6	100·0	99·5	100·0	9
September	97·7	99·2	100·0	99·5	100·0	9
October	97·6	99·1	100·0	99·5	100·0	9
November	98·4	99·5	100·0	99·5	100·0	9
December	99·7	99·6	100·0	99·5	100·0	9
1926 Average	**100·0**	**100·0**	**100·00**	**100·0**	**100·0**	**100**
1927.						
January	101·1	99·2	98·8	97·9	99·7	9
February	100·0	99·3	98·8	97·9	99·7	9
March	98·6	99·1	98·8	97·9	99·7	9
April	96·5	98·3	98·8	97·1	99·6	9
May	96·6	97·0	98·8	97·1	99·6	9
June	97·5	96·5	98·8	97·1	99·6	9
July	98·0	96·7	98·8	97·5	99·5	9
August	97·7	96·7	98·8	97·5	99·5	9
September	96·8	97·0	98·8	97·5	99·5	9
October	97·7	97·7	98·8	97·5	99·5	9
November	98·5	97·8	98·8	97·4	99·5	9
December	99·9	97·8	98·8	97·4	99·5	9
1927 Average	**98·1**	**97·8**	**98·8**	**97·5**	**99·6**	**9**
1928.						
January	100·4	97·4	101·2	97·2	99·6	9
February	99·1	97·5	101·2	97·2	99·6	9
March	97·7	97·5	101·2	97·2	99·6	9
April	97·5	97·3	101·2	97·2	99·6	9
May	96·4	96·7	101·2	97·3	99·6	9
June	95·9	96·0	101·2	97·3	99·6	9
July	96·6	96·0	101·2	97·3	99·6	9
August	98·9	96·3	101·2	97·6	99·6	9
September	99·2	96·4	101·2	97·6	99·6	9
October	101·1	97·1	101·2	97·6	99·6	9
November	100·7	97·2	101·2	97·6	99·6	9
December	100·5	97·2	101·2	97·6	99·6	9
1928 Average	**98·6**	**96·9**	**101·2**	**97·4**	**99·6**	**9**
1929.						
January	100·2	97·2	101·2	97·6	99·6	9
February	99·4	97·4	101·2	97·6	99·6	9
March	100·0	97·5	101·2	97·3	99·6	9
April	98·2	97·6	101·2	97·3	99·5	9

The Family Budget.—A family budget constructed by the Department of Labour appears regularly in the "Labour Gazette". This budget material has been used by the Bureau to obtain the tables which follow.

Table 7 shows the average prices of items included in the family budget in 1913, 1920 and each of the years from 1922-28. The index numbers are weighted with the quantities used by the Department of Labour in computing their monthly family budget. Table 8 gives these group indexes by provinces. An examination of the tables reveals the course of the budget, consisting of food, fuel and lighting and rents, over the period shown.

7.—Prices of a Family Budget of Staple Foods, Fuel and Lighting and Rent, in Sixty Cities in Canada, 1913, 1920, 1922-1928.

Commodities.	Quantity.	Base, 1913.	1920.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
		$	$	$	$	$	$	$	$	$
Beef, sirloin steak	1 lb.	0·222	0·389	0·292	0·283	0·280	0·285	0·294	0·308	0·345
Beef, chuck roast	1 "	0·148	0·251	0·162	0·152	0·148	0·152	0·160	0·172	0·206
Veal, roast	1 "	0·157	0·274	0·188	0·182	0·179	0·182	0·193	0·203	0·226
Mutton, roast	1 "	0·191	0·354	0·273	0·277	0·278	0·289	0·298	0·291	0·300
Pork, fresh, roast	1 "	0·195	0·397	0·295	0·264	0·240	0·275	0·302	0·282	0·273
Pork, salt mess	1 "	0·176	0·362	0·265	0·252	0·231	0·254	0·278	0·265	0·261
Bacon, breakfast	1 "	0·247	0·559	0·412	0·394	0·337	0·385	0·431	0·393	0·379
Lard, pure leaf	1 "	0·192	0·380	0·221	0·231	0·220	0·242	0·246	0·221	0·221
Eggs, fresh	1 doz.	0·337	0·709	0·447	0·442	0·439	0·486	0·466	0·487	0·478
Eggs, storage	1 "	0·281	0·608	0·390	0·370	0·368	0·417	0·398	0·424	0·412
Milk	1 qt.	0·086	0·151	0·121	0·117	0·121	0·119	0·118	0·119	0·121
Butter, dairy	1 lb.	0·292	0·631	0·378	0·399	0·387	0·389	0·406	0·415	0·417
Butter, creamery	1 "	0·339	0·696	0·440	0·451	0·435	0·439	0·448	0·463	0·461
Cheese, old	1 "	0·205	0·406	0·303	0·326	0·301	0·312	0·318	0·310	0·329
Cheese, new	1 "	0·191	0·383	0·279	0·326	0·301	0·312	0·318	0·310	0·329
Bread, plain white	1 "	0·041	0·093	0·069	0·067	0·069	0·078	0·076	0·077	0·077
Flour, family	1 "	0·032	0·079	0·047	0·044	0·045	0·057	0·053	0·053	0·052
Rolled oats	1 "	0·044	0·084	0·056	0·055	0·056	0·061	0·058	0·061	0·063
Rice, good medium	1 "	0·057	0·164	0·098	0·104	0·105	0·109	0·110	0·108	0·105
Beans, handpicked	1 "	0·062	0·117	0·087	0·087	0·084	0·083	0·079	0·081	0·089
Apples, evaporated	1 "	0·120	0·286	0·234	0·200	0·194	0·204	0·200	0·194	0·210
Prunes, medium	1 "	0·119	0·270	0·193	0·185	0·160	0·156	0·158	0·148	0·135
Sugar, granulated	1 "	0·059	0·197	0·087	0·117	0·109	0·085	0·079	0·083	0·079
Sugar, yellow	1 "	0·055	0·185	0·082	0·112	0·104	0·081	0·075	0·079	0·075
Tea, black	1 "	0·356	0·644	0·560	0·656	0·700	0·714	0·719	0·716	0·713
Tea, green	1 "	0·372	0·672	0·602	0·656	0·700	0·714	0·719	0·716	0·713
Coffee	1 "	0·376	0·608	0·535	0·539	0·550	0·604	0·612	0·612	0·607
Potatoes	1 pk.	0·150	0·658	0·235	0·252	0·270	0·276	0·436	0·317	0·258
Vinegar, white wine	1 pt.	0·064	0·080	0·078	0·075	0·080	0·080	0·080	0·080	0·080
All Foods, Weekly Budget	$	**7·337**	**15·99**	**10·394**	**10·525**	**10·313**	**10·813**	**11·211**	**11·001**	**11·037**
Starch, laundry	1 lb.	0·096	0·144	0·122	0·122	0·122	0·124	0·124	0·123	0·123
Coal, anthracite	1 ton	8·80	17·04	17·713	17·989	17·052	16·833	17·392	14·464	16·272
Coal, bituminous	1 "	6·19	12·38	11·436	11·555	10·707	10·249	10·311	10·208	10·113
Wood, hard, best	1 cord	6·80	13·09	12·564	12·764	12·485	12·280	12·195	12·128	12·077
Wood, soft	1 "	4·90	10·14	9·380	9·512	9·209	8·979	8·947	8·96	8·937
Coal oil	1 gal.	0·237	0·365	0·313	0·307	0·306	0·304	0·308	0·314	0·311
Rent, 1 month	$	19·00	24·80	27·74	27·86	27·79	27·537	27·43	27·44	27·67
Grand Total Weekly Budget	$	**14·024**	**25·908**	**20·877**	**21·068**	**20·693**	**21·063**	**21·471**	**21·201**	**21·269**

8.—Index Numbers of a Family Budget of Staple Foods, Fuel and Lighting and Rent in Canada, by Provinces, 1920-1928.

(Dominion Average for 1913=100.)

STAPLE FOODS.

No.	Provinces.	1920.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
1	Nova Scotia	221·0	143·6	148·8	144·1	149·5	154·8	148·8	149·
2	Prince Edward Island	193·4	129·5	130·0	128·9	134·8	142·3	136·6	134·
3	New Brunswick	214·1	142·5	146·6	144·7	147·7	155·9	150·1	149·
4	Quebec	206·7	135·2	137·0	132·2	139·3	144·9	139·4	139·
5	Ontario	225·2	140·4	142·7	139·5	145·0	154·2	150·8	151·
6	Manitoba	220·2	137·3	136·4	133·1	141·7	142·2	141·6	1 5
7	Saskatchewan	215·6	138·6	141·1	137·7	148·2	148·6	150·7	1· 2
8	Alberta	218·0	137·4	138·2	139·4	149·9	147·5	148·2	1 1
9	British Columbia	232·0	157·6	155·5	154·1	164·6	163·1	163·2	1· 1

FUEL AND LIGHTING.

1	Nova Scotia	170·6	161·7	163·8	160·9	157·1	155·5	150·8	152·
2	Prince Edward Island	181·8	174·6	196·6	179·1	174·3	167·0	162·8	152·
3	New Brunswick	185·3	173·1	174·8	169·5	164·9	168·1	164·4	161·
4	Quebec	195·0	183·1	183·8	175·4	172·8	177·5	175·4	174·
5	Ontario	198·5	190·2	194·1	183·0	179·6	182·2	179·1	177·
6	Manitoba	206·3	194·5	203·9	195·3	188·5	184·8	183·2	184·
7	Saskatchewan	210·3	205·8	201·7	195·2	186·4	181·2	182·7	183·
8	Alberta	161·6	129·7	134·8	122·5	128·3	126·2	122·0	108·
9	British Columbia	182·6	166·0	156·1	152·4	147·1	147·6	147·1	147·

RENT.

1	Nova Scotia	107·7	123·3	117·7	118·5	117·5	117·9	117·9	117·
2	Prince Edward Island	84·5	117·4	121·7	123·8	122·5	118·5	118·5	118·
3	New Brunswick	119·8	131·1	138·7	142·1	142·1	142·1	142·1	142·
4	Quebec	93·0	113·4	118·0	121·1	120·8	120·8	121·7	122·
5	Ontario	154·8	152·6	151·7	154·4	152·8	151·8	151·2	153·
6	Manitoba	159·6	181·2	181·2	184·2	184·2	184·2	184·2	184·
7	Saskatchewan	178·1	182·5	184·5	187·6	184·2	184·2	184·2	184·
8	Alberta	154·7	161·2	157·7	150·8	148·0	151·8	152·4	151·
9	British Columbia	119·3	132·1	132·1	134·3	135·4	135·8	136·6	138·

GRAND TOTAL.

1	Nova Scotia	175·3	139·1	140·1	137·4	139·4	142·1	138·4	138·
2	Prince Edward Island	154·5	131·5	136·2	133·7	135·6	137·3	134·0	131·
3	New Brunswick	177·8	143·0	147·7	146·9	147·9	152·7	149·1	148·
4	Quebec	166·0	134·3	136·7	134·1	137·4	141·0	138·1	138·
5	Ontario	187·1	151·4	152·5	150·2	152·2	156·8	154·6	155·
6	Manitoba	197·4	160·1	160·7	158·6	162·2	161·9	161·5	163·
7	Saskatchewan	202·1	162·8	163·9	162·1	165·3	164·8	166·2	167·
8	Alberta	188·6	144·5	144·1	140·6	146·0	145·8	145·9	145·
9	British Columbia	186·6	150·0	147·2	146·9	152·0	151·5	151·5	153·

Section 3.—Index Numbers of Security Prices.

Many important advances have recently been made in the direction of improvin the technique of making index numbers of security prices. The chief of these are— first, the computation of index numbers to serve different purposes: secondly weighting of the index numbers so that they will accurately represent the marke

an accurate index of market trends cannot be made on the basis of a simple average of market quotations or on any system which does not consider weighting: thirdly, using weighted average prices of individual securities rather than the average of high and low quotations or closing quotations. This last point is of considerable importance, because the average price at which a stock sells on a day's market frequently differs widely from the average of its high and low quotations or its closing price.

In the revised index numbers of security prices which have recently been issued by the Bureau full use of the improvements mentioned has been made, and our index numbers are now in line with the most advanced technique pertaining to the making of such indexes. In the revision, the base of the calculations was also changed. The basic period is now the year 1926, that is, prices prevailing in that year are taken as 100 and subsequent price movements are expressed as a percentage. The year 1926 was chosen as the base, in conformity with the tendency which now prevails to substitute a post-war for a pre-war base. This year was also chosen in order to enable comparisons to be made between Professor Fisher's indexes for the New York market and the Canadian markets. Index numbers for both markets are constructed on principles which are practically identical.

Two series of index numbers are now published by the Bureau on a weekly basis, *viz.*, traders' and investors' indexes. (See Tables **9** and **10**). As will be apparent, these measure movements of an entirely different character. The traders' index is based upon the prices of the twenty-five best selling industrial and public utility common stocks sold on the Montreal and Toronto exchanges each week. This traders' index measures the trend of gains or losses for an "average" trader on the Montreal and Toronto stock exchanges, who buys and sells the leading common stocks in the same proportion as they are traded in the market as a whole, and who turns over his investments every week. The investors' index, on the other hand, measures the trend of values for the investor who buys a list of stocks and holds them over a long period of time.

Investors' Index Numbers of Common Stocks, 1913 to 1928.—Monthly figures for the investors' index number of common stocks, computed by the Dominion Bureau of Statistics on the basis 1926 = 100, have been carried back to 1913. The index falls into two parts, *viz.*, the period subsequent to 1926 and the earlier period. For the period 1913 to 1926 those stocks were used which were included in the index number previously issued on the 1913 base, *viz.*, 31 industrials, 10 public utilities and 9 banks, or 50 stocks in all. In the subsequent period the list of stocks included in the monthly index numbers was enlarged and now contains 79 industrial, 16 domestic utilities, 8 companies located abroad and 9 bank stocks. Despite the difference in the number of stocks included, the trend of stock prices is adequately shown throughout the whole period. The larger number of stocks included in the revised index number, though adding little to the accuracy of the general index, gives more complete information regarding various groups of stocks traded on Canadian exchanges.

Banks are included in the monthly index numbers but not in the weekly, the trading in such securities not being, as a rule, sufficiently important to warrant their inclusion in a weekly index. In any case their inclusion does not affect the general index by more than a point or two.

9.—Investor's Monthly Index Numbers of Common Stocks, by Months, 1928.

NOTE.—For 1927 figures, see p. 800 of the 1927–28 Year Book and for 1919-1926 figures, see pp. 796–[illegible] of the 1927-1928 Year Book.

Months	Grand Total.	Banks Total.	Industrials.								
			Total.	Iron and Steel and Iron and Steel Products.	Pulp and Paper.	Milling.	Oils.	Textiles and Clothing.	Food and Allied Products.	Beverages.	Miscellaneous.
No. of Securities.	112	9	79	9	9	5	3	9	21	7	18
1928.											
January	149·3	129·3	172·5	224·1	151·6	187·7	173·9	140·3	170·3	165·5	175·5
February	146·0	134·4	167·6	213·5	153·4	182·6	165·8	137·0	166·7	158·2	172·2
March	149·5	134·6	172·4	224·3	156·0	176·7	171·9	133·8	162·5	168·6	179·4
April	156·6	146·7	177·0	249·8	160·0	180·4	177·0	136·4	165·4	181·9	177·3
May	164·5	146·8	184·4	255·7	156·3	184·9	193·6	134·0	169·7	187·3	183·3
June	151·9	139·1	170·0	230·8	127·0	175·8	180·8	123·0	157·3	165·0	177·7
July	152·6	136·7	169·6	234·7	113·7	176·1	186·2	120·0	155·8	167·4	175·5
August	148·6	136·5	166·5	222·2	98·9	169·9	186·3	116·5	150·1	158·6	181·1
September	159·7	139·9	185·3	247·3	108·1	178·9	210·8	117·7	153·1	175·4	210·0
October	168·4	142·2	201·2	267·5	99·3	190·7	228·2	114·2	159·3	183·4	245·5
November	184·2	144·6	229·3	317·5	101·1	197·5	261·5	114·3	166·6	195·8	295·5
December	183·6	147·4	237·3	328·6	97·1	208·3	246·5	114·1	182·5	184·4	336·6

Months	Public Utilities.				Companies Abroad.		
	Total.	Transportation.	Telephone and Telegraph.	Power and Traction.	Total.	Industrial.	Utility.
No. of Securities.	16	2	2	12	8	1	7
1928.							
January	136·2	132·1	115·5	147·8	143·3	123·2	168·8
February	135·1	128·0	116·7	150·1	140·2	115·0	171·1
March	137·6	134·5	119·3	147·3	147·6	118·1	183·4
April	139·5	132·8	120·8	154·0	156·0	124·5	194·9
May	150·6	137·7	124·4	175·0	163·8	132·2	202·6
June	139·1	127·6	119·4	160·1	150·2	120·6	192·6
July	140·6	129·2	118·0	162·1	153·0	121·5	197·0
August	136·1	129·5	115·6	150·7	145·9	117·7	186·6
September	143·4	136·2	118·6	159·7	154·9	122·9	200·6
October	144·2	137·9	118·7	159·7	168·6	134·3	217·7
November	149·2	149·6	119·2	157·3	189·1	159·5	234·4
December	149·7	149·3	120·3	158·8	185·5	151·5	235·7

10.—Traders' Index Numbers of Prices and Volume of Sales, 1927-28.

(1926=100.)

NOTE.—The Traders' Index measures the trend of gains or losses for an "average" trader on the Montreal and Toronto stock exchanges, who buys and sells as a whole and turns over his investments every week.

Column 1—Weighted index numbers of the prices of the 25 best selling Industrial and Public Utility common stocks on the Montreal and Toronto Exchanges.
Column 2—Weighted index numbers of the volume of shares sold.
Column 3—Index numbers of the total money value of the stocks included in 1 and 2 above.

Date.	Col. 1. — Prices.	Col. 2. — Sales.	Col. 3. — Values.
1927.			
January	111·7	90·9	101·5
February	123·0	93·2	114·6
March	132·3	95·5	126·3
April	146·2	102·3	149·6
May	161·0	104·2	167·8
June	177·3	132·1	234·2
July	174·0	66·7	116·0
August	187·8	63·1	118·5
September	211·3	110·1	232·6
October	236·4	120·6	285·1
November	251·7	83·9	211·2
December	281·4	104·5	294·0
1928.			
January	317·7	88·6	282·9
February	322·0	74·6	230·3
March	338·5	67·5	230·6
April	379·5	69·0	262·0
May	417·1	61·3	256·0
June	388·0	47·5	184·3
July	391·2	27·5	108·0
August	391·3	32·7	127·8
September	470·6	35·3	166·4
October	553·2	64·1	362·4
November	714·1	61·1	440·1
December	809·7	31·8	256·8
1929.			
January	1,039·5	45·1	475·3
February	1,125·8	24·8	280·3
March	1,057·3	23·9	242·4

Weighted Index Numbers of 17 Mining Stocks.—A weighted index number of 17 mining stocks has been computed by the Dominion Bureau of Statistics on the basis 1926 = 100. Stocks included are confined to producing mines, or those which are on the point of passing into that category. The list is as follows: Premier in B.C., Coniaurum, Dome, Hollinger, McIntyre, Vipond Consolidated in the Porcupine area; Amulet, Noranda in the Rouyn field; Kirkland Lake, Lakeshore, Sylvanite, Teck Hughes, Wright-Hargreaves in the Kirkland Lake zone and Beaver, Nipissing, Coniagas and Mining Corporation in the Cobalt-South Lorraine section. Mines of a semi-industrial nature, such as International Nickel and Consolidated Mining and Smelting Company, are not included in this index but are included in the Bureau's investor's index of common industrial and public utility stocks.

This index of mining stocks is weighted by the amount of stock outstanding, and therefore measures the price movement of shares from investors' rather than traders' point of view. In the case of Coniaurum and Kirkland Lake mines, a deduction has been made of the number of shares held by Coniagas and Beaver. Group index numbers are shown for eleven gold, two copper-gold and four silver stocks as well as for the total seventeen. (Table **11**).

In 1928 the general index commenced the year at 134·0 and fell to 113·0 in October. The December index was 115·1. Gold stocks declined steadily throughout the year. Gold-copper stocks were 110·6 in April and 315·0 in December. Silver and miscellaneous stocks declined from 122·4 in January to 72·2 in December.

11.—Weighted Index Numbers of 17 Mining Stocks, 1927-1928.

(1926=100.)

Years and Months.	Gold.	Gold-Copper.	Silver and Miscellaneous.	Total Index.
No. of Stocks.	11	2	4	17
1927.				
January	113·1	132·3	116·5	116·0
February	120·1	124·6	122·2	120·8
March	119·6	128·9	109·1	120·2
April	118·4	123·4	106·6	118·3
May	122·5	136·5	101·1	123·0
June	118·1	130·4	101·3	118·7
July	121·4	134·7	113·2	122·7
August	125·7	150·0	116·3	128·5
September	134·2	163·6	112·7	137·0
October	139·7	175·2	125·1	143·8
November	139·4	163·3	129·3	142·1
December	136·3	155·5	123·8	138·2
1928.				
January	132·5	144·2	122·4	134·0
February	121·0	125·8	105·5	121·4
March	121·7	123·7	103·1	121·5
April	117·5	110·6	97·0	115·6
May	115·7	136·9	95·2	118·1
June	113·1	197·7	90·1	125·6
July	101·7	293·0	84·8	131·9
August	92·0	291·2	78·4	123·6
September	91·6	283·6	77·2	121·9
October	84·3	268·3	66·4	113·0
November	82·0	300·8	68·6	116·5
December	76·8	315·0	72·2	115·1

Section 4.—Prices of Services.

A study of the prices of services sheds considerable light on the cost of living, as such services are a considerable item in the average family budget. Information with regard to the trend of street car fares, of rates for manufactured and natural fuel gas, of domestic electric light rates and of telephone charges was published at pages 801 to 804 of the 1927-28 Year Book. Later information shows that the prices of manufactured fuel gas have shown a downward tendency, the Dominion index number for 1927 being 129·4, as compared with 131·1 in 1926. The index number of the price of natural fuel gas has also declined from 172·1 in 1926 to 165·9 in 1927. On the other hand, telephone rates have shown a distinct increase, the Dominion index number for domestic telephone rates having risen from 120·2 p.c. of the 1913 base in 1926 to 128·8 in 1927. Again, the business telephone rate has risen from 124·0 p.c. of the 1913 base in 1926 to 146·8 in 1927. Additional information and details by provinces will be found at pages 119-127 of the Bureau of Statistics' Annual Report on Prices and Price Indexes, 1913-1927.

Hospital Charges.—In view of discussions of the increased cost entailed by illness and hospital treatment, a special investigation on hospital charges has recently been made and the results are given as Dominion averages in the following table. In general, this shows that hospital charges have increased between 80 and 90 p.c.

since 1913, except for operating room charges, which have increased only about 56 p.c. At the same time, the cost of maintaining patients in hospitals has increased by 93 p.c. Since general cost of living in the country has increased only from 50 to 60 p.c., it may be inferred that patients in hospitals have an improved standard of living and of comfort as compared with the conditions before the war.

The detailed results of this investigation, including the statistics by provinces, are to be found at pp. 120-122 of the Bureau of Statistics' Annual Report on Prices and Price Indexes, 1913-27.

12.—Average Daily Hospital Charges in Canada, 1913, 1916 to 1926.

Items.	1913.	1916.	1917.	1918.	1919.	1920.
Public Ward..... $	1·02	1·12	1·19	1·37	1·52	1·58
Index Number.....	100·0	110·0	119·4	134·8	149·7	156·0
Semi-private Rooms ..... $	1·57	1·71	1·79	2·03	2·27	2·44
Index Number.....	100·0	108·8	114·7	130·9	145·8	156·3
Private Rooms..... $	2·68	2·88	3·00	3·23	3·68	4·05
Index Number.....	100·0	107·5	111·8	120·8	138·2	151·4
Operating Room..... $	5·16	5·31	5·53	5·94	6·71	7·00
Index Number.....	100·0	103·3	107·4	115·4	130·8	137·0
Cost of maintenance per head..... $	1·68	1·84	2·14	2·47	2·72	3·08
Index Number.....	100·0	110·4	128·8	148·8	163·7	187·2

Items.	1921.	1922.	1923.	1924.	1925.	1926.
Public Ward..... $	1·72	1·78	1·84	1·86	1·88	1·86
Index Number.....	170·5	176·6	180·9	182·8	184·4	184·1
Semi-private Rooms..... $	2·63	2·69	2·73	2·74	2·84	2·88
Index Number.....	168·6	173·1	175·6	176·1	182·2	185·2
Private Rooms..... $	4·45	4·49	4·52	4·58	4·92	4·98
Index Number.....	167·4	169·1	170·3	172·3	185·9	188·5
Operating Room..... $	7·15	7·24	7·64	7·87	7·97	8·06
Index Number.....	140·1	141·8	148·9	153·0	155·1	156·7
Cost of maintenance per head..... $	3·22	3·12	3·17	3·25	3·20	3·27
Index Number.....	195·6	189·7	192·5	197·1	188·8	193·2

Section 5.—Index Numbers of Interest Rates.

Few economic statistics are of more significance than the net rates of interest paid on the absolutely safest securities, such as Government bonds maturing on a fixed and definite date. Other interest rates naturally grade upward from the rates which the safest of possible borrowers has to pay, and from the fluctuations of that price an idea may be obtained as to the relation between the supply of and the demand for funds for investment.

Prior to the war, the funded debt of the Dominion was entirely held outside the country, there being no home market for Canadian Government bonds. Since about the beginning of the century, however, the province of Ontario, the wealthiest and most populous of the provinces of the Dominion, has done its financing largely in Canada itself, and the fluctuation in the rate of yield of province of Ontario bonds is thus the best long-term indicator of net interest rates in the Dominion. These yields, compiled originally by Wood, Gundy and Co. of Toronto, and furnished by that firm to the Bureau of Statistics, have been recalculated as an index number

on a 1926 base and are shown in Table **13,** a particularly interesting feature bei the decline in the interest rates index from the high point of 129·4 in October 192 88·7 in April of 1928. Since the latter date, the scarcity of funds for this typ investment has forced the index number up to 101·2 in March 1929.

13.—Index Numbers of Interest Rates in Canada, Calculated from Yields of Ont Bonds, 1900-1928.[1]

(Base 1926=100)

Months.	1900.	1901.	1902.	1903.	1904.	1905.	190
January	73·1	77·9	79·3	78·5	78·5	78·5	7
April	74·1	78·5	79·3	78·5	78·5	75·2	7
June	75·2	78·7	79·3	78·5	79·3	74·1	7
October	77·2	78·7	79·3	78·5	79·3	75·2	7
December	77·7	79·3	78·5	78·5	78·3	76·2	7

	1907.	1908.	1909.	1910.	1911.	1912.	19
January	78·3	88·7	82·5	81·4	83·5	83·5	8
April	81·4	87·7	81·4	82·5	81·0	85·6	8
June	85·6	86·6	80·4	82·5	81·0	86·6	9
October	87·7	85·6	80·4	82·5	81·4	87·7	9
December	88·7	83·5	81·4	83·5	83·5	88·7	9

	1914.	1915.	1916.	1917.	1918.	1919.	192
January	91·9	88·7	109·6	100·2	125·3	121·1	12
April	90·8	91·9	110·6	109·6	125·3	116·9	12
June	88·7	93·9	109·6	114·8	126·3	112·7	12
October	88·7	104·4	104·4	123·2	125·3	116·9	12
December	88·7	109·6	102·3	125·3	125·3	120·0	12

Months.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	192
January	125·3	116·9	112·7	106·5	99·2	100·2	97·1	9
February	125·3	114·8	110·6	106·1	100·2	100·2	97·1	9
March	125·3	113·8	109·6	106·1	100·2	100·2	96·0	9
April	125·3	112·7	107·5	106·1	100·2	100·2	95·2	9
May	126·3	112·7	107·5	106·1	99·2	100·2	95·0	9
June	126·3	112·7	107·5	105·8	99·2	100·2	95·0	9
July	128·4	112·7	107·5	103·5	99·2	100·2	95·0	9
August	128·4	112·7	107·5	99·2	99·2	100·2	95·0	9
September	127·3	111·7	107·5	99·2	99·2	100·2	95·0	9
October	126·3	111·7	107·9	100·2	100·2	100·2	93·9	9
November	119·4	112·7	107·3	99·2	100·2	99·2	93·3	9
December	119·4	113·2	107·3	99·2	100·2	99·2	90·8	9

[1] In 1929 the index number was 97·1 in January, 98·1 in February and 101·2 in March.

Section 6.—Index Numbers of Import and Export Valuation

Index numbers of import and export valuations have been computed by Dominion Bureau of Statistics for the calendar years 1920 to 1927 and are sho in Table **14.** Fifty export and 60 import commodities are included in calculations. The year 1913 has been taken as a base. Index numbers were cal lated on the aggregative principle and an individual and group system of weight has been used on the basis of quantities imported or exported.[1]

A comparison of the prices of imports and exports with wholesale commo prices reveals that the import and export prices move on a lower level t wholesale prices. This fact is thus accounted for—:

[1] For list of commodities included see Appendix A, Prices and Price Indexes, 1913-1926.

(1) Prices of commodities which enter into international trade are usually on a lower level than prices of domestic commodities.

(2) Prices used in an index number of wholesale prices are for identical grades of commodities throughout the whole period under investigation. In an index number of import and export valuations the prices used are the result of dividing total values by total quantities imported or exported and are, therefore, average values of all grades traded in a particular year. A change in average value in one year as compared with another may be due, therefore, to a change in price or to a change in the character of the grades traded. A lower level in index numbers may be due to the predominance of lower priced grades.

(3) Index numbers of wholesale prices are based on prices charged by wholesalers in the country making the index, including all charges on imports, such as customs duty, insurance, freight, brokerage and so on. Customs valuations, on the other hand, are the fair market values as sold for home consumption in the country of origin. In the case of imports, movements in freight rates, insurance rates, customs duties, special taxes, such as sales tax, etc., would not directly affect the import valuations, but they would all be reflected in wholesale prices.

An index number of export and import valuations is a needful supplement to index numbers of wholesale prices. Very frequently total export and import valuations are corrected by wholesale prices index numbers in order to eliminate the influence of price fluctuation and enable a comparison to be made on a quantity basis. But wholesale price index numbers are not really suitable for this purpose, since they frequently show a considerable difference from index numbers of export and import valuations. In Canada there are now two better means of making a quantitative comparison of export and import movements. First, figures are computed by the External Trade Branch of the Dominion Bureau of Statistics showing the total values of exports and imports for the fiscal years, commencing with the year ended Mar. 31, 1921, on the basis of average values in the fiscal year ended March, 1914. That is to say, in this calculation prices do not change from year to year but are taken as constant while the quantities change. Thus changes in the total value figures from year to year indicate changes in quantities of commodities imported and exported and not changes in prices. Secondly, index numbers of export and import values are computed by the Prices' Division of the Bureau. These index numbers are so constructed as to eliminate the influence of changes in the quantities of exports and imports. The basis in this case is the calendar year and not the fiscal year. Fixed quantities of exports and imports are multiplied by the average values of each calendar year and the aggregate amounts turned into index numbers. The quantities selected refer to the year 1913, but if the quantity in that year was not considered sufficiently representative for the period investigated, it was amended by reference to later years. The result is to eliminate the influence of changing quantities and to secure measurement of changing valuations. Index numbers were also computed for group as well as total valuations. These index numbers may be used for correcting total import and export valuations on a calendar year base so as to eliminate the influence of price changes.

Index numbers of import and export valuations, however, have other important uses, which may be enumerated.

(1) They tend to corroborate the measurement of wholesale prices. Though they move on a lower level than wholesale price indexes, the direction of their movement follows a parallel course.

(2) Their chief value lies in the fact that from them a comparison may be ma of price movements of Canadian exports and imports. Both series of values a f.o.b. values, that is, they are prices exclusive of customs, insurance and freig charges. (In the case of Canadian exports freight charges would in some cases included up to the port of exit but this would also be true of some goods shipp from foreign countries to Canada). Since the values are f.o.b. and are fair mar values as sold for home consumption, a comparison of the resulting index numbe of exports and imports shows whether or not Canada is receiving in average valu for the goods she sells an equivalent in average values for the goods she buys. S a large proportion of our exports are agricultural products, any disparity betwe the price of Canadian farm products and the price of goods bought from abro would be reflected in the index numbers. Moreover, if the index numbers of expo are higher than those of imports, this would indicate a condition tending to pr perity in Canada and *vice versa* if index numbers of exports were lower. In ot words, Canadian prosperity depends in no small measure on the purchasing pow of our exports. From this point of view it is interesting to compare the ind numbers of export and import values in Table **14.**

14.—Index Numbers of Export and Import Valuations, calendar years 1920-19

(1913=100.)

EXPORTS.

Groups.	Number of Items.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	192
Vegetables and their products	14	256·1	159·3	129·3	122·2	133·1	155·2	150·9	1
Animals and their products	11	209·1	150·4	136·2	142·0	136·3	155·1	148·0	16
Fibres, textiles and textile products	2	190·1	139·0	117·1	134·2	161·1	165·8	140·3	12
Wood, wood products and paper	8	250·5	216·3	168·3	178·0	173·3	167·9	162·4	15
Iron and its products	4	341·4	93·8	107·9	90·8	88·3	83·8	82·9	9
Non-ferrous metals and their products	6	167·3	130·8	123·6	121·2	123·3	132·9	129·4	12
Non-metallic minerals and their products	2	275·9	256·3	189·2	190·1	181·1	169·9	172·8	17
Chemicals and allied products	3	138·8	125·7	117·0	118·2	109·0	109·6	107·6	9
Total Exports	50	229·7	164·8	137·8	136·8	139·6	151·7	147·0	14

IMPORTS.

Vegetables and their products	15	264·2	200·3	131·8	174·4	167·2	154·8	149·8	15
Animals and their products	3	203·3	91·4	85·3	87·3	78·9	93·6	86·9	9
Fibres, textiles and textile products	15	285·4	165·0	156·5	182·4	181·7	184·0	158·0	14
Wood, wood products and paper	3	298·6	174·8	161·3	178·2	167·0	175·6	164·4	16
Iron and its products	11	146·4	137·6	103·5	108·8	107·4	98·6	95·0	9
Non-ferrous metals and their products	3	111·4	87·2	89·2	91·8	92·0	100·6	107·4	10
Non-metallic minerals and their products	7	207·1	179·3	181·6	162·2	145·4	143·9	141·7	13
Chemicals and allied products	3	230·6	215·2	164·3	143·7	143·9	140·3	148·7	14
Total Imports	60	220·7	160·4	135·0	147·6	142·0	139·6	131·7	12
Combined Index		225·7	162·8	136·5	141·7	140·7	146·3	140·1	13

CHAPTER XXI.—PUBLIC FINANCE.

The following treatment of public finance includes a discussion of Dominion, Provincial and Municipal Finance in Canada, with numerous tables, and closes with a brief discussion of the national wealth and national income of the Dominion as the basis of all public finance.

In recent years the subject of public finance has been more elaborately treated than formerly, in response to an increasing public demand, resulting from the growing pressure of taxation to meet the augmented expenditures of the national, provincial and local administrations. In the consideration of these growing expenditures two facts must be kept in mind:—(1) that our country is showing a relatively rapid growth of population—22 p.c. in the 10 years from 1911 to 1921, and (2) that $1.50 in 1928 had approximately the same purchasing power as $1 in 1913. Furthermore, since most of our citizens are producers, the effect of this latter fact in swelling the aggregated total money income of the citizens of Canada so as to increase their tax-paying power should not be forgotten. In addition, there is an evident increase in the functions of Government.

The great increase in Dominion expenditure since 1913 has, of course, been mainly due to the war and the burden of interest, pension charges, soldiers' civil re-establishment, etc., resulting from the war, as well as to the necessity of making good the deficits arising from the operation of the Canadian National Railways and the Canadian Government Merchant Marine. Similar increases have also taken place during the same period in provincial and municipal expenditure. In 1927 the total ordinary expenditure of the nine Provincial Governments was $152,211,883, as compared with $53,826,219 in 1916, only 11 years before, an increase of 182·8 p.c. (The aggregate interest payments of Provincial Governments increased from $7,817,844 in 1916 to $39,899,948 in 1927). Again, between 1913 and 1927 the aggregate taxes imposed by the municipalities of Ontario increased from $34,231,214 to $106,075,959—an increase of 209·9 p.c. Similarly, in Quebec the aggregate ordinary expenditures of the municipalities increased from $19,139,465 in 1914 to $54,259,457 in 1927, an increase of 183 p.c. In Manitoba the increase in municipal taxation has been from $9,922,537 in 1912 to $17,907,723 in 1927, an increase of 80·5 p.c. These statistics, covering nearly two-thirds of the population of the Dominion, are from Provincial Government reports, and the increase which they show has doubtless also occurred in most of the other provinces.

Section 1.—Dominion Public Finance.

Historical Sketch.—Both under the French *régime* and in the earlier part of the British, the territorial or casual revenues of Canada, consisting of certain seigneurial dues and the proceeds of the sale of government timber and land, were reserved to the Crown, while the right of levying taxes and of regulating the trade and commerce of the colony was, after 1763, deemed to be vested in the British Parliament.

By the Quebec Act of 1774, certain duties on spirits and molasses were imposed, to be expended by the Crown in order to provide a revenue "towards defraying the

expenses of the administration of justice and the support of the civil government of the province". A little later, in 1778, the British Government, by the Declaratory Act (18 Geo. III, c. 12), renounced forever the right of taxing the colonies to provide Imperial revenue, but maintained its claim to impose duties considered necessary for the regulation of trade, the proceeds to go towards defraying the expenditures of the colonial administration. After the Constitutional Act of 1791, the customs duties remained under the control of the Imperial Government, their revenue, as well as the territorial revenue above mentioned, coming in to the executive administration independently of the Legislative Assembly and thus making the executive power largely independent of the Legislature. In case these revenues proved insufficient, recourse could generally be had to the grant made by the Imperial Government for the support of the army. As time went on, however, the Crown revenues became more and more inadequate to meet the increasing expenditure, while the wave of economy in Great Britain after 1815 made it impossible any longer to supplement these revenues from military sources. On the other hand, the purely provincial revenues collected under the authorization of the Provincial Legislature showed an increasing surplus. The power of the purse thus began to pass into the hands of the Legislatures; further, in 1831 the British Parliament passed an Act placing the customs duties at the disposal of the Legislatures.

Under the Act of Union a consolidated revenue fund was established. All appropriation bills were required to originate in the Legislative Assembly, which was forbidden to pass any vote, resolution or bill involving the expenditure of public money unless the same had first been recommended by a written message of the Governor-General. The British Government surrendered all control of the hereditary or casual revenues, which were thenceforth paid into the treasury of the province, to be disposed of as its Legislature should direct.

At the interprovincial conferences which took place prior to Confederation, it was decided that the new Dominion Government, which was to take over permanently, as its chief source of revenue, the customs and excise duties that had yielded the greater part of the revenues of the separate provinces (direct taxation being as unpopular in British North America as in other new countries) was also to assume the provincial debts and to provide out of Dominion revenues definite cash subsidies for the support of the Provincial Governments. (See Tables 17 and 18.) Until the Great War, which made other taxes necessary, the customs and excise revenue constituted the chief resource of the Dominion Government for general purposes—the post office revenue and railway receipts which, properly speaking, are not taxes at all, being mainly or entirely absorbed by the expense of administering these services. Indeed, for many years preceding the war, customs and excise duties, together with the revenue from the head tax on Chinese immigrants, were the only items of receipts which were classified as taxes by the Department of Finance. In the last fiscal year of peace, these two items aggregated $126,143,275 out of total receipts on consolidated fund account amounting to $163,174,395, the post office and government railways furnishing between them $26,348,847 of the remainder, offset, however, by expenditure on these two services amounting to $27,757,196. Miscellaneous revenue, largely fees, amounted in that year to $10,682,273—a comparatively small fraction of the total. As both customs and excise taxes were indirect, the average Canadian felt but little the pressure of taxation for Dominion purposes.

The war enormously increased the expenditure, and this increase had in the main to be met by loans. It is, however, a cardinal maxim of public finance that

where loans are contracted, sufficient new taxation should be imposed to meet the interest charge upon the loans and to provide a sinking fund for their ultimate extinction. This war taxation was begun in Canada within the first weeks of the war, when in the short war session of August, 1914, increases were made in the customs and excise duties on various commodities, including coffee, sugar, spirituous liquors and tobacco. In 1915, special additional duties of 5 p.c. *ad valorem* were imposed on commodities imported under the British preferential tariff and 7½ p.c. *ad valorem* on commodities imported under the intermediate and general tariffs, certain commodities being excepted. New internal taxes were also imposed on bank circulation, on the income of trust and loan companies, on insurance in other than life and marine companies, on telegrams and cablegrams, railway tickets, sleeping-car berths, etc., also on cheques, postal notes, money orders, letters and post cards. In the following year, the business profits war tax (dropped in 1921) was introduced, and in 1917 an income tax was imposed. In 1918 both of these taxes were increased and their application widened, and in 1919 the income tax was again increased, and still further augmented in 1920 by a surtax of 5 p.c. of the tax on incomes of $5,000 and over; the sales tax was also introduced in that year. The cumulative result of these war taxes was that, in the fiscal year ended Mar. 31, 1921, customs duties were for the first time displaced from their position as the chief factor in Canadian revenue, the war taxes yielding $168,385,327, as against the customs yield of $163,266,804. In 1922 war taxes yielded $177,484,161, while the yield of the customs fell to $105,686,645. Again, in 1923 the war taxes yielded $181,634,875 and customs duties $118,056,469, in 1924 $182,036,261 and $121,500,798, in 1925 $147,164,158 and $108,146,871, in 1926 $157,296,321 and $127,355,143, in 1927 $156,167,434 and $141,968,678. In 1928, however, the customs duties yielded $156,985,818, as against $150,319,087 collected by the war taxes.

A more detailed sketch of the new taxation imposed during the war period from 1914 to 1921 will be found at pp. 755-757 of the 1926 Year Book. An outline of the chief changes in taxation between 1922 and 1925 will be found at pp. 807-808 of the 1927-28 Year Book.

Recent Modifications in the System of Taxation.[1]—In the session of 1926 various changes were made in the customs tariff by c. 7. Green coffee, spices, nutmegs, mace, arrowroot and sponges were made free under the British preferential tariff, and the preferential rate on pineapples in air-tight cans was reduced from 1¾c. to ½c. per lb. The duties on raw sugar imported for refining were also materially reduced under all tariffs, but so as to increase the British preference. Again, the duties on automobiles were substantially reduced under all tariffs, the rate on the cheaper types of automobile imported under the general tariff being reduced from 35 to 20 p.c., and under the British preferential tariff from 22½ to 12½ p.c. Finally, tin plate was made free under the preferential tariff and reduced from 12½ to 5 p.c. under the general tariff. By c. 10, amending the Income War Tax Act of 1917, the exemption limit was raised from $2,000 to $3,000 in the case of married persons or those with dependants, and from $1,000 to $1,500 in the case of other persons. The rates of taxation were also reduced all along the line, those with incomes of $5,000 or less paying only 2 p.c. instead of 4 p.c. or more of their taxable income, the income tax of a married person without dependants being reduced from $619.50 to $290 on an income of $10,000 and from $3,024 to $2,530 on an income of $25,000. The rate of taxation of corporate incomes was

[1]For modifications in taxation in the years 1922 to 1925, see 1927-28 Year Book, pp. 807-8.

reduced from 10 to 9 p.c. The budget speech also announced the abolition of the tax on receipts and the restoration of penny postage, both as from July 1, 1926.

In the session of 1927 the general rate of the sales tax was reduced from 5 to 4 p.c. The rate of the graduated income war tax was also reduced by 10 p.c., so that each taxpayer paid only 90 p.c. of what he would have paid on the same income in the preceding year. The $500 exemption for children was extended to include those under 21 (instead of 18) years of age dependent upon the taxpayer for support. Further, the tax on cheques, money orders, notes, etc., which had previously been graduated from a minimum of 2 cts. on cheques of from $5 to $50 to a maximum of $1 on cheques of $2,500 and over, was reduced to a flat 2 cts. on all cheques of $10 and over. The excise tax on matches was also reduced by 25 p.c. No changes were made in the tariff in 1927, as the new Advisory Board on Tariff and Taxation to which certain matters had been referred, was only in the initial stages of its investigations.

In 1928, the general rate of the sales tax was reduced from 4 to 3 p.c. The rate of the graduated income war tax on individuals was reduced by a further 10 p.c. of the 1926 tax, so that an individual paid only 80 p.c. of what he would have paid on the same income two years before. Similarly, the rate of taxation on the income of corporations and joint stock companies, which had been 10 p.c. two years before and 9 p.c. in 1927, was reduced to 8 p.c. on incomes in excess of $2,000. The $500 exemption for children was further extended to include this exemption for persons over 21 years of age dependent upon the taxpayer for support on account of mental or physical infirmity. The customs tariff was also amended in the direction of reducing the duties upon machinery and other commodities used in production in the mining and fishing industries, on onion plants for propagation, also on disinfecting and spraying preparations in the fruit and horticultural industries, and on press blankets used in the printing and publishing industry. In the textile industries, reductions were very generally made both on cotton, woollen and other yarns used by manufacturers as the material for further production, also on many finished cotton, woollen linen, flax, jute, silk and artificial silk finished products. Also the duty on many types of machinery used in the textile industry was generally reduced or even taken off entirely under the British preferential tariff. For details of these very numerous changes, see c. 17 of the 1928 Statutes.

Subsection 1.—The Current Balance Sheet of the Dominion.

A summary review of the current financial situation of the Dominion as on Mar. 31, 1928, is given in the balance sheet shown below (Table **1**). This shows the gross debt on the above date to have been $2,677,137,243, partly offset by available assets aggregating $380,287,010, leaving a net debt of $2,296,850,233[1]. Non-available assets, including such public works as canals and railways, also loans to railways, amounted in the aggregate to $1,596,937,137, leaving a debit balance on Consolidated Fund Account on Mar. 31, 1928, of $699,913,096. The details of the various assets and liabilities are contained in the schedules accompanying the balance sheet and printed in the Public Accounts.

[1]The net debt on Mar. 31, 1924, was $2,417,783,275, on Mar. 31, 1925, $2,417,437,686, on Mar. 31, 1926, $2,389,731,099, and on Mar. 31, 1927, $2,347,834,370. See Table **19**, page 813.

1.—Balance Sheet of the Dominion of Canada, as at Mar. 31, 1928.

(From the Public Accounts).

ACTIVE ASSETS—		
Cash on hand and in Banks		$ 45,829,382
Specie Reserve		95,352,702
Advances to Provinces, Banks, etc		114,752,860
Advances to Foreign Governments		31,249,720
Soldier and General Land Settlement Loans		69,410,199
Miscellaneous Current Accounts		23,692,147
Total Active Assets		$ 380,287,010
Balance being Net Debt, Mar. 31, 1928 (exclusive of interest accrued and outstanding carried forward)		2,296,850,233
		$ 2,677,137,243
NON-ACTIVE ASSETS—		
Public Works, Canals		$ 201,448,019
Public Works, Railways		429,830,120
Public Works, Miscellaneous		200,497,882
Military Property and Stores		12,034,170
Territorial Accounts		9,895,948
Railway Accounts (old)		88,398,829
Railway Accounts (Loans non-active)		611,747,239
Canadian Government Merchant Marine, Limited		10,474,510
Miscellaneous Investments and other Accounts (non-active)		32,610,420
Balance Consolidated Fund as at Mar. 31, 1927	$ 790,026,390	
Excess of Revenue over Expenditure, year ended Mar. 31, 1928	90,113,294	
		699,913,096
		$ 2,296,850,233
LIABILITIES—		
Dominion Notes in Circulation		$ 188,631,490
Bank Note Circulation Redemption Fund		5,929,219
Post Office Account, Money Orders, Postal Notes, etc., outstanding		5,489,215
Savings Bank Deposits		31,103,776
Insurance and Superannuation Funds		51,639,110
Trust Funds		19,755,617
Contingent Funds		1,627,576
Province Accounts		9,623,817
Miscellaneous Current Accounts		99,673
Temporary Loans		201,000
Funded Debt		2,360,158,676
Interest Due and Unpaid		2,878,074
		$ 2,677,137,243

NOTE.—The Dominion of Canada is also responsible for principal and interest on loans negotiated by railways under various Acts of Parliament, amounting to $440,224,186. (See p. 000 for details).

Subsection 2.—Receipts and Disbursements.

The receipts of the Dominion Government on Consolidated Fund Account for the fiscal year ended Mar. 31, 1928, were $422,717,983, an increase of $24,022,207 as compared with the preceding year; besides these, special receipts amounted to $6,924,594—a total of $429,642,577 (Table **2**). The regular expenditure on consolidated fund account was $336,167,961, while special expenditure amounted to $3,361,322. There was also a net expenditure on capital account of $20,635,648. and other expenditures of $18,493,509, including Government Merchant Marine $999,837, advances to Quebec Harbour Commissioners (non-active) $1,458,000, $13,935,673 to provide for revaluation and losses on account of soldiers' land settlement loans, $2,000,000 on account of seed grain relief, and $100,000 University Hospital, Edmonton, Alberta, transferred to non-active assets. Thus the total disbursements, inclusive of these and other advances, amounted to $378,658,440. There was a decrease of $50,984,137 in the net debt (gross debt less available assets) during the year. (See Table **23.**)

Detailed statistics of receipts and disbursements are contained in Tables **2** and **3**. Tables **4** and **5** are historical tables giving the figures of the main items of Dominion receipts and expenditure since Confederation, while Table **6** shows the

per capita receipts and expenditure for these years, calculated on census and estimated populations.

2.—Details of Revenue Receipts, fiscal years ended Mar. 31, 1924-1928.

Items.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$
Consolidated Fund Receipts—					
Taxation—					
Customs	121,500,799	108,146,871	127,355,144	141,968,678	156,985,81
Excise	38,181,747	38,603,489	42,923,549	48,513,160	57,400,89
War Tax Revenue—					
Banks	1,236,957	1,217,754	1,176,869	1,174,665	1,224,64
Trust and Loan Companies	308,632	315,315	326,714	335,368	345,43
Insurance Companies	857,587	867,902	950,221	947,830	999,00
Business Profits	4,752,681	2,704,427	1,173,448	710,102	956,03
Income Tax	54,204,028	56,248,043	55,571,962	47,386,309	56,571,04
Sales Tax, Tax on Cheques, Transportation Tax, etc	120,676,376	85,810,717	98,097,106	105,613,160	90,222,93
Total from Taxation	**341,718,807**	**293,914,518**	**327,575,013**	**346,649,272**	**364,705,80**
Non-Tax Revenue—					
Canada Gazette	72,168	77,424	66,885	68,312	81,24
Canals	897,412	907,650	921,215	961,694	1,355,67
Casual	3,502,707	2,978,633	3,545,897	3,302,484	3,614,06
Chinese Revenue	325,762	304,837	21,244	13,228	14,17
Dominion Lands	2,281,704	2,390,374	2,803,513	3,327,273	3,688,59
Electric Light Inspection	148,590	142,706	456,144	538,917	563,91
Fines and Forfeitures	321,127	265,210	246,593	504,309	568,14
Fisheries	163,492	136,540	168,277	175,213	119,14
Gas Inspection	71,637	73,708	80,069	76,880	85,71
Inspection of Staples (Grain Act)	2,319,971	2,322,710	2,685,592	2,582,984	2,677,87
Insurance Inspection	109,677	111,150	122,779	120,334	123,76
Interest on Investments	11,916,479	11,332,329	8,535,086	8,559,401	10,937,82
Law Stamps	7,177	7,752	7,262	8,152	12,17
Mariners' Fund	172,319	184,188	190,572	195,080	222,04
Military College	66,105	63,975	52,645	18,239	20,23
Military Pension Revenue	124,654	127,095	131,099	128,386	128,01
Ordnance Lands	57,502	15,551	13,007	29,702	14,20
Patent Fees	459,780	550,531	535,124	517,930	495,79
Penitentiaries	132,907	158,917	155,759	170,338	177,93
Post Office	28,865,374	28,782,536	30,334,575	29,069,169	31,562,58
Premium, Discount and Exchange	2,159,517	1,074,863	1,153,132	649,337	594,21
Public Works	502,755	483,718	495,066	539,941	453,08
Royal N.W.M.P. Officers' Pensions	5,695	4,418	5,588	8,769	6,14
Steamboat Inspection	127,897	122,917	123,380	135,131	127,85
Superannuation Fund	8,722	4,767	463	392	17
Weights and Measures	290,175	293,765	315,704	333,034	361,69
Other Revenues	7,568	1,697	3,553	11,875	5,90
Total Consolidated Fund Receipts	**396,837,682**	**346,834,479**	**380,745,506**	**398,695,776**	**422,717,98**
Special Receipts—					
Miscellaneous Revenue	9,745,158	4,680,913	2,147,503	1,757,704	6,924,59
Total Receipts	**406,582,840**	**351,515,392**	**382,893,009**	**400,453,480**	**423,642,57**

3.—Details of Expenditure, fiscal years ended Mar. 31, 1924-1928.

NOTE.—Adulteration of Food, Marine Hospitals and Quarantine have been classified in the public accounts of 1924-1928 under the heading "Health", but are here deducted, so as not to break the continuity of the table.

Items.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$
Consolidated Fund Expenditure—					
Adulteration of Food	90,800	93,121	95,799	105,800	120,80
Administration of Justice	2,196,492	2,194,569	2,159,573	2,201,141	2,190,81
Air Board	1,249,178	1,377,328	1,880,615	2,197,645	3,891,86
Arts and Agriculture	6,805,058	5,787,601	5,771,476	5,838,941	6,487,76
Bounties	79,810	72,044	31,784	164,791	82,80
Charges on debt—					
Charges of Management	992,611	830,991	875,368	963,252	884,53
Interest on debt	136,237,872	134,789,604	130,691,493	129,675,367	128,902,94
Premium, discount and exchange	1,296	18,703	9,020	24,013	42,23
Total charges on debt	137,231,779	135,639,298	131,575,881	130,662,632	129,829,71

3.—Details of Expenditure, fiscal years ended Mar. 31, 1924-1928—concluded.

Items.	1924.	1925.	1926.	1927.	1928.
Consolidated Fund Expenditure—con.	$	$	$	$	$
Civil Government	10,514,983	10,407,963	10,779,338	10,865,757	11,576,140
Customs and Excise	6,773,633	7,654,132	9,717,920	10,130,430	11,801,331
Department of Mines	495,732	538,731	551,997	558,695	624,184
Dominion Lands	3,694,768	3,403,327	3,638,537	4,251,663	4,082,752
Fisheries	1,430,065	1,390,043	1,449,731	1,437,179	1,751,147
Government of N.W. Territories	301,591	341,404	370,434	371,320	392,378
Health	251,793	211,669	195,319	207,578	260,804
Immigration	2,417,374	2,823,920	2,328,931	2,338,992	2,704,698
Indians	3,594,798	3,658,284	3,684,951	3,869,394	4,199,541
Labour	1,220,006	1,166,065	1,271,967	1,452,415	1,411,027
Legislation	2,318,643	2,439,773	4,208,477	4,543,798	2,041,192
Lighthouse and Coast Service	2,293,059	2,137,601	2,355,893	2,463,558	2,771,031
Mail Subsidies and Steamship Subventions	1,105,087	1,055,643	1,078,038	1,008,999	844,591
Marine Hospitals	109,429	144,988	139,999	189,924	189,970
Militia	9,761,956	8,885,573	9,256,628	9,141,220	10,151,975
Miscellaneous	10,583,850	6,345,897	4,399,578	5,013,178	6,501,410
Naval Service	1,360,807	1,400,132	1,459,664	1,597,407	1,702,225
Ocean and River Service	2,439,279	2,252,634	2,397,924	2,566,730	3,749,105
Penitentiaries	1,628,227	1,582,290	1,620,600	1,685,556	1,755,763
Pensions	33,411,081	34,888,665	37,198,700	37,902,939	39,778,130
Post Office	28,305,941	29,873,802	30,499,686	31,007,698	31,782,968
Public Works	1,061,840	997,241	931,491	918,580	942,544
Railways and Canals	2,126,803	1,996,152	2,120,223	2,152,015	2,535,361
Public Works, Income	11,900,847	12,029,578	13,416,045	11,178,054	14,037,366
Quarantine	210,168	197,006	199,452	191,917	199,861
Railways and Canals, Income	5,349,001	4,062,943	3,037,906	1,581,688	5,838,145
Royal C.M. Police	2,446,143	2,002,232	2,062,493	2,097,887	2,300,439
Scientific Institutions	1,116,744	1,047,232	1,007,960	960,233	1,004,195
Soldiers' Civil Re-establishment	9,970,993	8,765,880	7,705,584	6,976,762	6,958,811
Soldiers' Land Settlement	1,532,978	1,371,829	1,237,421	1,250,787	1,334,008
Steamboat Inspection	111,500	113,771	118,843	121,961	131,065
Subsidies to Provinces	12,386,136	12,281,391	12,375,129	12,516,740	12,516,740
Superannuation	748,788	733,734	719,689	677,692	625,005
Superannuation No. 3	53,004	44,440	29,315	20,789	19,038
Superannuation No. 4	565,178	1,085,039	831,510	770,121	723,825
Civil Service Widows' Annuities Act, 1927	–	–	–	–	130,946
Trade and Commerce	2,817,707	3,773,676	4,077,585	3,692,148	3,517,492
Weights and Measures, etc	463,388	448,114	460,222	475,899	498,493
Yukon Territory	284,608	173,874	210,062	189,120	178,511
Other	2,145	1,272	117	–	–
Total Ordinary Expenditure	**324,813,190**	**318,891,901**	**320,660,479**	**319,548,173**	**336,167,961**
Special Expenditure—					
War and Demobilization	446,083[1]	506,931[1]	191,393[1]	64,485[1]	1,656,011[1]
Cost of Loan Flotations	7,705,544	3,416,115	3,523,925	3,278,032	13,057
Other Charges	197,215	537,318	2,806,167[5]	4,537,945[5,6]	1,692,254[5,6]
Total Special	**8,348,842**	**4,460,364**	**6,521,485**	**7,880,462**	**3,361,322**
Capital Expenditure[2]	**10,861,277**	**16,550,511**	**16,798,549**	**19,558,703**	**20,635,648**
Loans and Advances Non-active—					
Advances to Railways (Non-active)	23,710,617	9,934,453	10,000,000	10,000,000	–
Advances to Canadian Government Merchant Marine, Ltd	1,500,000	900,000	668,000	426,817	999,837
Advances to Quebec Harbour Commissioners (Non-active)	449,000	702,000	511,000	680,000	1,458,000
Miscellaneous debits and credits *re* sundry non-active assets accounts	906,321[4]	—269,425	26,910	462,596	16,035,672[3]
Grand Total Expenditure	**370,589,247**	**351,169,803**	**355,186,423**	**358,556,751**	**378,658,440**

[1]Expenditure on adjustment of war claims, $766,432 less receipts $320,349 on war and demobilization account in 1924, $523,812 less $16,880 in 1925, $319,210 less $127,817 in 1926, $241,704 less $177,308 in 1927, and $1,860,985, less $204,974 in 1928.

[2]Net figure; includes large expenditures on Welland Ship Canal. See p. 682.

[3]Includes $13,935,673 to provide for revaluation and losses on account of soldiers' land settlement loans, $2,000,000 on account of seed grain relief, Department of Interior, and $100,000 University Hospital, Edmonton, Alberta, transferred to non-active assets.

[4]This includes $621,987, balance of loan made to Victoria Shipowners, Ltd., in 1920-21, now transferred to non-active assets account.

[5]Includes $2,521,083 on account of Home Bank Depositors' Relief in 1926, $256,776 in 1927 and $205,033 in 1928.

[6]Includes $1,099,673 Government contributions to the Civil Service Superannuation Fund under the Act of 1924 (14-15 Geo. 6, c. 69) in 1927 and $1,402,210 in 1928.

4.—Principal Items of Receipts of Canada on Consolidated Fund Account, 1868-1928.

Fiscal Years.	Customs Taxes.	Excise Taxes.	War Tax Revenue.[1]	Total Revenue from Taxation.	Interest on Investments.	Post Office and Money Orders.	Total Revenue Receipts.[2]
	$	$	$	$	$	$	$
1868	8,578,380	3,002,588	–	11,700,681	174,073	525,692	13,687,928
1869	8,272,880	2,710,028	–	11,112,573	824,424	535,315	14,379,175
1870	9,334,213	3,619,623	–	13,087,882	383,956	573,566	15,512,226
1871	11,841,105	4,295,945	–	16,320,369	554,384	612,631	19,335,561
1872	12,787,982	4,735,652	–	17,715,552	488,042	692,375	20,714,814
1873	12,954,164	4,460,682	–	17,616,555	396,404	833,657	20,813,469
1874	14,325,193	5,594,904	–	20,129,185	610,863	1,139,973	24,205,093
1875	15,351,012	5,069,687	–	20,664,879	840,887	1,155,332	24,648,715
1876	12,823,838	5,563,487	–	18,614,415	798,906	1,102,540	22,587,587
1877	12,546,988	4,941,898	–	17,697,925	717,684	1,114,946	22,059,274
1878	12,782,824	4,858,672	–	17,841,938	791,758	1,207,790	22,357,011
1879	12,900,659	5,390,763	–	18,476,613	592,500	1,172,418	22,517,382
1880	14,071,343	4,232,428	–	18,479,577	834,793	1,252,498	23,307,407
1881	18,406,092	5,343,022	–	23,942,139	751,513	1,352,110	29,635,298
1882	21,581,570	5,884,860	–	27,549,047	914,009	1,587,888	33,383,456
1883	23,009,582	6,260,117	–	29,269,699	1,001,193	1,800,391	35,794,650
1884	20,023,890	5,459,309	–	25,483,199	986,698	1,755,674	31,861,962
1885	18,935,428	6,449,101	–	25,384,529	1,997,035	1,841,372	32,797,001
1886	19,362,308	5,852,905	–	25,215,213	2,299,079	1,901,690	33,177,040
1887	22,373,951	6,308,201	–	28,682,152	990,887	2,020,624	35,754,993
1888	22,091,682	6,071,487	–	28,163,169	932,025	2,379,242	35,908,464
1889	23,699,413	6,886,739	–	30,586,152	1,305,392	2,220,504	38,782,870
1890	23,913,546	7,618,118	–	31,531,664	1,082,271	2,357,389	39,879,925
1891	23,305,218	6,914,850	–	30,220,068	1,077,228	2,515,823	38,579,311
1892	20,361,382	7,945,098	–	28,306,480	1,086,420	2,652,746	36,921,872
1893	20,910,662	8,367,364	–	29,278,026	1,150,167	2,773,508	38,168,609
1894	19,119,030	8,381,089	–	27,500,119	1,217,809	2,809,341	36,374,693
1895	17,585,741	7,805,733	–	25,391,474	1,336,047	2,792,790	33,978,129
1896	19,766,741	7,926,006	–	27,692,747	1,370,001	2,964,014	36,618,591
1897	19,386,278	9,170,379	–	28,556,657	1,443,004	3,202,938	37,829,778
1898	21,622,789	7,871,563	–	29,494,352	1,513,455	3,527,810	40,555,238
1899	25,150,745	9,641,227	–	34,791,972	1,590,448	3,193,778	46,741,249
1900	28,219,458	9,868,075	–	38,087,533	1,683,051	3,205,535	51,029,994
1901	28,293,930	10,318,266	–	38,612,196	1,784,834	3,441,505	52,514,701
1902	31,916,394	11,197,134	–	43,113,528	1,892,224	3,918,416	58,050,790
1903	36,738,033	12,013,779	–	48,751,812	2,020,953	4,397,833	66,037,069
1904	40,461,591	12,958,708	–	53,420,299	2,236,256	4,652,325	70,669,817
1905	41,437,569	12,586,475	–	54,020,124	2,105,031	5,125,373	71,182,773
1906	46,053,377	14,010,220	–	60,063,597	2,140,312	5,933,343	80,139,360
1907[3]	39,717,079	11,805,413	–	51,522,492	1,235,746	5,061,728	67,969,328
1908	57,200,276	15,782,152	–	72,982,428	1,925,569	7,107,887	96,054,506
1909	47,088,444	14,937,768	–	62,026,212	2,256,643	7,401,624	85,093,404
1910	59,767,681	15,253,353	–	75,021,034	2,807,465	7,958,548	101,503,711
1911	71,838,089	16,869,837	–	88,707,926	1,668,773	9,146,952	117,780,409
1912	85,051,872	19,261,662	–	104,313,534	1,281,317	10,492,394	136,108,217
1913	111,764,699	21,447,445	–	133,212,144	1,430,511	12,051,729	168,689,903
1914	104,691,238	21,452,037	–	126,143,275	1,964,541	12,954,530	163,174,395
1915	75,941,220	21,479,731	98,057	97,519,008	2,980,247	13,046,665	133,073,482
1916	98,649,409	22,428,492	3,620,782	124,666,969	3,358,210	18,858,690	172,147,838
1917	134,043,842	24,412,348	16,302,238	174,758,428	3,094,012	20,902,384	232,701,294
1918	144,172,630	27,168,445	25,379,901	196,720,976	4,466,724	21,345,394	260,778,953
1919	147,169,188	30,342,034	56,177,508	233,688,730	7,421,002	21,603,542	312,946,747
1920	168,796,823	42,698,083	82,079,801	293,574,707	17,086,981	24,471,709	349,746,335
1921	163,266,804	37,118,367	168,385,327	368,770,498	24,815,246	26,706,198	436,292,185[4]
1922	105,686,645	36,755,207	177,484,161	319,926,013	21,961,513	26,402,299	382,271,571[4]
1923	118,056,469	35,761,997	181,634,875	335,453,341	16,465,303	29,016,771	403,094,210[4]
1924	121,500,799	38,181,747	182,036,261	341,718,807	11,916,479	28,865,374	406,582,840[4]
1925	108,146,871	38,603,489	147,164,158	293,914,518	11,332,328	28,782,535	351,515,392[4]
1926	127,355,144	42,923,549	157,296,320	327,575,013	8,535,086	30,334,575	382,893,009[4]
1927	141,968,678	48,513,160	156,167,434	346,649,272	8,559,401	29,069,169	400,452,480[4]
1928	156,985,818	57,400,898	150,319,087	364,705,803	10,937,822	31,562,580	429,642,577[4]

[1]For detailed statement see Table 8, p. 804. [2]Includes various smaller items of revenue receipts.
[3]Nine months. [4]Inclusive of special receipts of $1,905,648 in 1921, $319,184 in 1922, $8,479,310 in 1923, $9,745,158 in 1924, $4,680,913 in 1925, $2,147,503 in 1926, $1,757,704 in 1927, and $6,924,594 in 1928. See Table 2, p. 796.

5.—Principal Items of Dominion Expenditure, 1868-1928.

NOTE.—From 1868 to 1906, inclusive, the fiscal years ended on June 30, and from that date to 1928, on Mar. 31.

Fiscal years.	Consolidated Fund.							
	Interest on Debt.	Charges of management, premium, discount and exchange.	Pensions.	Public Works.	Railways and Canals.[1]	Subsidies to Provinces.	Post Office.	Total Expenditure chargeable to Consolidated Fund.[2]
	$	$	$	$	$	$	$	$
1868...	4,501,568	359,190	56,422	126,270	581,503	2,753,966	616,802	13,486,093
1869...	4,907,014	465,657	50,564	65,013	641,814	2,604,050	787,886	14,038,084
1870...	5,047,054	339,999	53,586	120,031	743,070	2,588,605	808,623	14,345,510
1871...	5,165,304	426,655	52,611	597,275	752,772	2,624,940	815,471	15,623,082
1872...	5,257,231	346,413	62,251	849,786	913,236	2,930,113	929,609	17,589,469
1873...	5,209,206	178,644	49,204	1,297,999	1,378,164	2,921,400	1,067,866	19,174,648
1874...	5,724,436	264,685	56,454	1,778,916	2,260,820	3,752,757	1,387,270	23,316,317
1875...	6,590,790	227,201	63,657	1,756,010	1,981,893	3,750,962	1,520,861	23,713,071
1876...	6,400,902	208,149	110,201	1,948,242	1,897,283	3,690,355	1,622,827	24,488,372
1877...	6,797,227	207,875	112,531	1,262,823	2,239,346	3,655,851	1,705,312	23,519,302
1878...	7,048,884	192,087	105,842	997,470	2,374,314	3,472,808	1,724,939	23,503,158
1879...	7,194,734	277,923	107,795	1,013,023	2,570,361	3,442,764	1,784,424	24,455,382
1880...	7,773,869	289,085	192,889	1,046,342	2,226,456	3,430,846	1,818,271	24,850,634
1881...	7,594,145	225,444	96,389	1,108,815	2,603,717	3,455,518	1,876,658	25,502,454
1882...	7,740,804	195,044	101,197	1,342,000	2,755,833	3,530,999	1,980,567	27,067,104
1883...	7,668,552	234,170	98,446	1,765,256	3,117,465	3,606,673	2,176,089	28,730,157
1884...	7,700,181	229,906	95,543	2,908,852	3,122,103	3,603,714	2,312,965	31,107,706
1885...	9,419,482	387,495	89,879	2,302,363	3,268,222	3,959,327	2,488,315	35,037,060
1886...	10,137,009	346,921	88,319	2,046,552	3,339,670	4,182,526	2,763,186	39,011,612
1887...	9,682,929	287,742	102,109	2,133,316	3,673,894	4,169,341	2,818,907	35,657,680
1888...	9,823,313	343,592	120,334	2,162,116	4,160,332	4,188,514	2,889 729	36 718,495
1889...	10,148,932	273,590	116,030	2,299,231	4,095,301	4,051,428	2,982,321	36,917,835
1890...	9,656,841	230,409	107,391	1,972,501	4,362,200	3,904,922	3,074,470	35,994,031
1891...	9,584,137	262,068	103 850	1,937,546	4,505,516	3,903,757	3,161,676	36,343,568
1892...	9,763,978	183,938	92,457	1,627,851	4,337,877	3,935,914	3,316,120	36,765,894
1893...	9,806,888	213,794	90,309	1,927,832	3,848,404	3,935,765	3,421,203	36,814,053
1894...	10,212,596	180,975	86,927	2,033,955	3,760,550	4,206,655	3,517,261	37,585,025
1895...	10,466,294	278,950	84,349	1,742,317	3,704,126	4,250,675	3,593,647	38,132,005
1896...	10,502,430	248,575	86,080	1,299,769	3,826,226	4,235,664	3,665,011	36,949,142
1897...	10,645,663	315,314	90,882	1,463,719	3,725,690	4,238,059	3,789,478	38,349,760
1898...	10,516,758	199,887	96,187	1,701,313	4,049,275	4,237,372	3,575,412	38,832,526
1899...	10,855,112	173,257	96,129	1,902,664	4,246,404	4,250,636	3,603,799	41,903,500
1900...	10,699,645	227,194	93,453	2,289,889	5,244,301	4,250,608	3,758,015	42,975,279
1901...	10,807,955	201,861	93,551	3,386,632	6,377,961	4,250,607	3,931,446	46,866,368
1902...	10,975,935	263,250	83,305	4,221,294	6,508,477	4,402,098	4,023,637	50,759,392
1903...	11,068,139	294,968	87,925	4,065,553	7,221,705	4,402,503	4,105,178	51,691,903
1904...	11,128,637	288,984	113,495	4,607,330	8,397,434	4,402,292	4,347,541	55,612,833
1905...	10,630,115	276,072	140,424	6,765,446	9,803,912	4,516,038	4,634,528	63,319,683
1906...	10,814,697	346,902	179,023	7,484,716	8,779,678	6,726,373	4,921,577	67,240,641
1907[3].	6,712,771	244,548	125,832	5,520,571	7,011,858	6,745,134	3,979,557	51,542,161
1908...	10,973,597	383.820	187,557	8,721,327	10,586,114	9,032,775	6,005,930	76,641,452
1909...	11,604,584	356,707	191,533	12,300.184	10,780,126	9,117,143	6,592,386	84,064,232
1910...	13,098,160	358,973	216,697	7,261,218	10,215,038	9,361,388	7,215,338	79,411,747
1911...	12,535,851	376,777	240,586	8,621,431	11,123,251	9,092,472	7,954,223	87,774,198
1912...	12,259,397	455,011	245,045	10,344,487	12,330,463	10,281,045	9,172,036	98,161,441
1913...	12,605,882	502,988	283,188	13,468,505	13,766,180	13,211,800	10,882,804	112,059,537
1914...	12,893,505	487,184	311,900	19,007,513	14,935,138	11,280,469	12,822,058	127,384,473
1915...	15,736,743	554,729	358,558	19,343,532	13,876,060	11,451,673	15,961,191	135,523,207
1916...	21,421,585	731,836	671,133	12,039,252	20,777,830	11,451,673	16,009,139	130,350,727
1917...	35,802,567	496,387	2,814,546	8,633,096	27,124,004	11,469,148	16,300,579	148,599,343
1918...	47,845,585	488,712	8,155,691	7,432,901	34,849,608	11,369,148	18,046,558	178,284,313
1919...	77,431,432	1,305,676	18,282,440	6,295,060	45,494,584	11,327,236	19,273,758	232,731,283
1920...	107,527,089	1,462,658	26,004,461	9,016,246	8,418,624	11,490,860	20,774,312	303,843,930
1921...	139,551,520	1,102,088	37,420,751	10.846,875	8,886,458	11,490,860	22,696,561	361,118,145
1922...	135,247,849	4,109,601	36,153,031	10,574,364	8,624,094	12,211,924	28,121,425	347,560,691
1923...	137,892,735	1,003,068	32,985,998	9,978.440	7,691,261	12,207,313	27,794,502	332,293,732
1924...	136,237,872	993,907	33,411,081	11,900,847	2,126,803	12,386,136	28,305,941	324,813,190
1925...	134,789,604	849,694	34,888,665	12,029,578	1,996,152	12,281,391	29,873,802	318,891,901
1926...	130,691,493	884,388	37,203,700	13,416,045	2,120,223	12,375,128	30,499,686	320,660,479
1927...	129,675,367	987,265	37,902,939	11,178,054	2,152,015	12,516,740	31,007,698	319,548,173
1928...	128,902,945	926,765	39,778,130	14,037,366	2,535,361	12,516,740	31,782,968	336,167,961

[1]Expenditure (Collection of Revenue). After 1919, railway receipts were applied directly to railway expenditure; this accounts for the great decline in the figures in 1920 and subsequent years. [2]This total includes various non-enumerated items. [3]Nine months.

5.—Principal Items of Dominion

Fiscal years	Capital Expenditure.								
	Canals.	Canadian Pacific Railway.	Debts allowed to Provinces.	Dominion Lands.	Intercolonial and connected Railways, miscellaneous.	Public Works.	Hudson Bay Railway.	National Transcontinental Railway, including Quebec Bridge.	Prince Edward Island Railway
	$	$	$	$	$	$	$	$	$
1868	51,498	–	–	–	455,250	41,690	–	–	-
1869	130,142	–	–	–	282,615	8,548	–	–	-
1870	–	–	–	–	1,693,229	–	–	–	-
1871	–	30,148	–	–	2,866,376	–	–	–	-
1872	255,646	489,428	1,666,200	–	5,131,141	68,746	–	–	-
1873	256,547	561,818	13,859,080	–	5,019,240	99,517	–	–	-
1874	1,189,592	310,225	4,927,061	–	3,614,899	135,963	–	–	-
1875	1,714,830	1,546,242	–	–	3,426,100	189,484	–	–	46,0
1876	2,388,733	3,346,567	–	–	1,108,322	267,840	–	–	42,5
1877	4,131,375	1,691,150	–	–	1,318,352	258,833	–	–	200,0
1878	3,843,339	2,228,373	–	–	408,817	170,120	–	–	6,5
1879	3,064,099	2,240,286	–	–	226,639	77,179	–	–	40,1
1880	2,123,366	4,044,523	–	–	2,048,015	8,730	–	–	16,5
1881	2,077,029	4,968,504	–	334,681	608,733	187,370	–	–	-
1882	1,647,759	4,589,076	–	511,882	585,569	70,949	–	–	4
1883	1,763,002	10,033,800	–	556,870	1,616,633	119,869	–	–	57,1
1884	1,577,295	11,192,722	7,172,298	723,658	2,689,690	491,376	–	–	130,0
1885	1,504,621	9,900,282	5,420	303,593	1,247,006	182,306	–	–	76,9
1886	1,333,325	3,672,585	3,113,334	130,653	765,967	569,202	–	–	4,6
1887	1,783,698	915,057	–	162,392	926,030	353,044	–	–	5,3
1888	1,633,118	52,099	–	135,048	1,713,487	963,778	–	–	
1889	972,918	86,716	–	130,684	2,623,137	575,408	–	–	
1890	1,026,364	40,981	–	133,832	2,351,787	3,220,926	–	–	
1891	1,280,725	37,367	–	94,847	1,184,318	515,702	–	–	
1892	1,463,279	66,212	–	86,735	316,784	224,390	–	–	8,3
1893	2,069,573	413,837	–	115,038	299,081	181,878	–	–	
1894	3,027,164	146,540	–	149,147	439,209	102,059	–	–	
1895	2,452,274	49,209	–	99,842	327,605	102,393	–	–	
1896	2,258,779	65,669	–	82,184	260,396	114,826	–	–	
1897	2,348,637	14,054	–	9[1],412	190,570	129,238	–	–	
1898	3,207,250	692	–	127,505	252,756	364,018	–	–	17,5
1899	3,899,877	8,419	267,026	151,213	1,081,930	385,094	–	–	22,0
1900	2,639,565	236	–	199,470	3,255,348	1,089,827	–	–	53,5
1901	2,360,570	8,979	–	269,061	3,633,837	1,006,983	–	–	280,1
1902	2,114,690	449	–	370,838	4,626,841	2,190,125	–	–	475,9
1903	1,823,274	–	–	449,542	2,254,267	1,268,004	–	–	829,4
1904	1,880,787	33,076	–	748,855	1,879,566	1,334,397	–	6,249	698,8
1905	2,071,594	–	–	794,410	4,755,578[2]	1,642,042	–	778,491	591,4
1906	1,552,121	–	–	599,780	3,765,171	2,359,528	–	1,841,270	496,1
1907[6]	887,839	–	–	526,583	1,512,491[3]	1,797,871	–	537,867	91,2
1908	1,723,156	600	–	768,244	4,369,738	2,969,049	–	18,910,253	390,9
1909	1,873,868	939	–	797,747	3,874,480	2,832,295	92,428	31,317,132	561,2
1910	1,650,707	–	–	785,157	1,278,409	4,514,606	53,043	19,868,064	206,2
1911	2,349,475	2,918	–	–5,508	763,833	3,742,717	184,150	23,715,549	94,8
1912	2,560,938	–	–	–	1,710,449	4,116,385	159,632	22,264,130	128,0
1913	2,259,642	–	–	–	2,406,988[4]	6,057,515	1,099,063	15,279,837	103,0
1914	2,829,661	–	–	–	4,348,000	10,100,017	4,498,717	15,274,206	129,6
1915	5,490,796	–	–	–	6,914,977	11,049,030	4,773,744	12,648,242	570,3
1916	6,170,953	–	–	–	7,861,899	8,471,229	4,887,131	9,825,265	1,350,4
1917	4,304,589	–	–	–	4,873,032	7,838,116	2,604,280	6,650,263	609,1
1918	1,781,957	–	–	–	–	6,347,201	1,879,699	103,167	
1919	2,211,964	–	–	–	–	5,705,348	562,558	1,723,638	
1920	4,550,761	–	–	–	3,285,736	38,869,683	235,608	527,480	3,5
1921	5,450,006	–	–	–	731,018	27,559,809	30,036	20,164	
1922	4,482,610	–	–	–	9,649	10,431,699	34,770	–	97,0
1923	4,995,184	–	–	–	59,950	3,411,510	27,803	–	
1924	6,747,395	–	–	–	–	3,804,427	207,872	–	196,4
1925	10,619,903	–	–	–	–	6,030,320	–124,154	–	
1926	12,024,456	–	–	–	–	4,805,949	2,484	–	
1927	13,845,689	–	–	–	–	2,920,670	2,823,905	–	
1928	13,762,905	71	–	–	–	3,281,097	3,554,503[7]	–	63,4

[1]Including $2,725,504, for the improvement of the St. Lawrence, spent during the previous years - Montreal Harbour Commission. [2]Including $17,956, cost of new car for the Governor-General. [3]Includ $38,583, cost of new car for the Governor-General. [4]Including $15,000, cost of new car for the Govern General. [5]Includes New Brunswick Railway. [6]Nine months. [7]Includes capital expenditure on Hud Bay Terminals $880,278.

Expenditure, 1868-1928—concluded.

North-west Territories.	Militia.	Canadian Government Railways.	Total Capital Expenditure.	Other Expenditure.			Total Expenditure.	Fiscal Yrs.
				Railway Subsidies.	War and Demobilization.	Other Charges.		
$	$	$	$	$	$	$	$	
–	–	–	548,438	–	–	37,158	14,071,689	1868
19,113	–	–	440,418	–	–	429,663	14,908,166	1869
1,821,887	–	–	3,515,116	–	–	155,988	18,016,614	1870
773,872	–	–	3,670,396	–	–	–	19,293,478	1871
241,889	–	–	7,853,050	–	–	223,456	25,665,975	1872
63,239	–	–	19,859,441	–	–	5,719	39,039,808	1873
–	–	–	10,177,740	–	–	4,019	33,498,076	1874
–	–	–	6,922,743	–	–	2,253,097	32,888,911	1875
–	–	–	7,154,008	–	–	315,764	31,958,144	1876
–	–	–	7,599,710	–	–	1,388,984	32,507,996	1877
–	–	–	6,657,200	–	–	385,413	30,545,772	1878
–	–	–	5,648,332	–	–	676,225	30,779,939	1879
–	–	–	8,241,174	–	–	949,948	34,041,756	1880
–	–	–	8,176,317	–	–	117,772	33,796,643	1881
–	–	–	7,405,637	–	–	201,885	34,674,625	1882
–	–	–	14,147,360	–	–	21,369	42,898,886	1883
–	–	–	23,977,702	208,000	–	2,567,453	57,860,862	1884
–	–	–	13,220,185	403,245	–	502,587	49,163,078	1885
–	–	–	9,589,734	2,701,249	–	10,534,973	61,837,569	1886
293,918	–	–	4,439,939	1,406,533	–	–	41,504,152	1887
539,930	–	–	4,437,460	1,027,042	–	155,623	45,064,124	1888
31,448	–	–	4,420,313	846,722	–	1,333,328	43,518,198	1889
4,773	–	–	6,778,663[1]	1,678,196	–	44,947	41,770,333	1890
2,901	–	–	3,115,860	1,265,706	–	68,074	40,793,208	1891
−1,243	–	–	2,164,457	1,248,216	–	2,093,569	42,272,136	1892
8,911	–	–	3,088,318	811,394	–	139,963	40,853,728	1893
−1,149	–	–	3,862,970	1,229,885	–	330,354	43,008,234	1894
−833	–	–	3,030,490	1,310,549	–	399,294	42,872,338	1895
−543	1,000,000	–	3,781,311	3,228,746	–	137,185	44,096,384	1896
3,284	745,965	–	3,523,160	416,955	–	682,881	42,972,756	1897
−1,272	173,740	–	4,142,231	1,414,935	–	944,589	45,334,281	1898
−1,853	387,810	–	6,201,516	3,201,220	–	236,399	51,542,635	1899
−1,473	230,851	–	7,467,370	725,720	–	1,549,098	52,717,467	1900
−1,632	135,885	–	7,693,857	2,512,329	–	900,312	57,982,866	1901
−1,543	299,697	–	10,077,095	2,093,939	–	1,040,374	63,970,800	1902
−3,040	428,223	–	7,049,684	1,463,222	–	1,541,763	61,746,572	1903
−2,616	1,299,910	–	7,879,102	2,046,878	–	6,716,235	72,255,048	1904
−2,478	1,299,964	–	11,931,014	1,275,630	–	2,277,812	78,804,139	1905
−1,767	1,299,876	–	11,912,104	1,637,574	–	2,487,323	83,277,642	1906
−1,352	975,283	–	11,327,792	1,324,889	–	1,583,297	65,778,139	1907
−911	1,297,905	–	30,428,996	2,037,629	–	3,470,603	112,578,680	1908
−1,045	1,243,072	–	42,592,122	1,785,887	–	4,999,283	133,441,524	1909
−650	1,299,970	–	29,655,703	2,048,097	–	4,280,227	115,395,774	1910
−33,688	–	–	30,813,767	1,284,892	–	2,988,393	122,861,250	1911
–	–	–	30,939,576	859,400	–	7,181,665	137,142,082	1912
–	–	–	27,206,046	4,935,507	–	255,787	144,456,878	1913
–	–	–	37,180,176	19,036,237	–	2,640,162	186,241,048	1914
–	–	–	41,447,320	5,191,507	60,750,476	5,186,016	248,098,526	1915
–	–	–	38,566,950	1,400,171	166,197,755	3,186,898	339,702,502	1916
–	–	–	26,880,032	959,584	306,488,815	15,275,345	498,203,118	1917
–	–	32,999,880	43,111,904	720,405	343,836,802	10,706,787	576,660,210	1918
–	–	14,827,758	25,031,266	43,805	446,519,440	−7,283,582	697,042,212	1919
–	–	22,307,366	69,301,878	334,845	346,612,955	19,995,313	786,030,611[2]	1920
–	–	6,221,774	40,012,807	–	16,997,544	492,048	528,302,513[2]	1921
–	–	1,239,605	16,295,333	–	1,544,250	301,518	463,528,389[2]	1922
–	–	1,313,022	9,807,124	–	4,464,760	4,042,931	434,735,277[2]	1923
–	–	−94,835	10,861,277	−1,523	446,083	7,902,759	370,589,247[2]	1924
–	–	24,442	16,550,511	–	506,931	3,953,433	351,169,803[2]	1925
–	–	−29,372	16,798,549	–	191,392	6,330,092	355,186,423[2]	1926
–	–	−31,562	19,558,703	–	64,485	7,814,977	358,556,751[2]	1927
–	–	−26,347	20,635,648	–	1,656,011	1,705,311	378,658,440[2]	1928

[2] Includes Advances to Railways (non-active), amounting to $45,780,690 in 1920, $109,662,655 in 1921, $97,950,645 in 1922, $77,863,938 in 1923, $23,710,617 in 1924, $9,934,453 in 1925, $10,000,000 in 1926, $10,000,000 in 1927, together with advances of $5,979,856 in 1923, $1,500,000 in 1924, $900,000 in 1925, $668,000 in 1926, $426,817 in 1927, $999,837 in 1928 to the Canadian Government Merchant Marine; also other advances shown at the end of Table 3 on page 797.

6.—Census and Estimated Populations, per capita Taxation and Total Revenue Receipts, per capita Expenditure on Consolidated Fund Account and Total Expenditure, 1868-1928.[1]

NOTE.—The years marked with an asterisk (*) are those of the Census, April 2, 1871, April 4, 1881, April 6, 1891, April 1, 1901, June 1, 1911 and 1921. In all cases down to 1910 the population is estimated at the close of each fiscal year: June 30 from 1868 to 1906, and Mar. 31 from 1907 to 1910. For the intercensal years 1912 to 1920, and also for 1922 to 1928, the population is estimated as at June 1. The fiscal period of 1907 is for the nine months ended Mar. 31.

Years	Population.	Per Capita Revenue from Taxation.	Per Capita Total Revenue Receipts.	Per Capita Expenditure on Consolidated Fund Account	Per Capita Total Disbursements.	Years	Population.	Per Capita Revenue from Taxation.	Per Capita Total Revenue Receipts.	Per Capita Expenditure on Consolidated Fund Account	Per Capita Total Disbursements.
	No.	$	$	$	$		No.	$	$	$	$
1868..	3,372,000	3·47	4·05	4·00	4·17	1898..	5,199,000	5·55	7·80	7·47	8·75
1869..	3,413,000	3·26	4·21	4·11	4·37	1899..	5,259,000	6·62	8·89	7·97	9·86
1870..	3,454,000	3·79	4·29	4·15	5·22	1900..	5,322,000	7·16	9·59	8·07	9·09
1871*.	3,485,761	4·68	5·55	4·48	5·53	1901*.	5,371,315	7·19	9·78	8·72	10·79
1871..	3,518,000	4·64	5·50	4·44	5·48	1901..	5,403,000	7·15	9·72	8·67	10·73
1872..	3,611,000	5·04	5·74	4·87	7·11	1902..	5,532,000	7·79	10·49	9·18	11·56
1873..	3,668,000	4·80	5·67	5·23	10·64	1903..	5,673,000	8·59	11·64	9·11	10·88
1874..	3,825,000	5·26	6·33	6·10	8·76	1904..	5,825,000	9·17	12·13	9·55	12·40
1875..	3,887,000	5·32	6·34	6·10	8·46	1905..	5,992,000	9·02	11·88	10·57	13·15
1876..	3,949,000	4·71	5·70	6·20	8·09	1906..	6,171,000	9·73	12·99	10·90	13·42
1877..	4,013,000	4·41	5·50	5·86	8·10	1907..	6,302,000	8·18	10·71	8·18	10·44
1878..	4,079,000	4·37	5·49	5·76	7·49	1908..	6,491,000	11·24	14·80	11·81	17·34
1879..	4,146,000	4·46	5·43	5·90	7·42	1909..	6,695,000	9·26	12·71	12·56	19·93
1880..	4,215,000	4·38	5·53	5·90	8·08	1910..	6,917,000	10·85	14·67	11·48	16·63
1881*.	4,324,810	5·54	6·85	5·90	7·82	1911*.	7,206,643	12·31	16·34	12·18	17·04
1881..	4,337,000	5·52	6·83	5·88	7·79	1912..	7,365,205	14·16	18·48	13·33	18·62
1882..	4,384,000	6·28	7·62	6·18	7·91	1913..	7,527,208	17·70	22·41	14·89	19·19
1883..	4,433,000	6·60	8·08	6·48	9·68	1914..	7,692,832	16·40	21·21	16·56	24·22
1884..	4,485,000	5·68	7·11	6·94	12·90	1915..	7,862,078	12·40	16·93	17·24	31·56
1885..	4,539,000	5·59	7·23	7·72	10·80	1916..	8,035,584	15·51	21·42	16·22	42·27
1886..	4,589,000	5·49	7·23	8·50	13·48	1917..	8,180,160	21·36	28·45	18·17	60·93
1887..	4,638,000	6·18	7·71	7·69	8·95	1918..	8,328,382	23·62	31·31	21·41	69·24
1888..	4,688,000	6·01	7·66	7·84	9·61	1919..	8,478,546	27·56	36·91	27·45	82·24
1889..	4,740,000	6·45	8·19	7·79	9·18	1920..	8,631,475	34·01	40·52	35·20	91·09
1890..	4,793,000	6·58	8·33	7·52	8·71	1921*.	8,788,483	41·96	49·64	41·09	60·12
1891*.	4,833,239	6·25	7·98	7·52	8·44	1922..	8,908,550	35·91	42·91	39·01	52·01
1891..	4,844,000	6·24	7·96	7·50	8·42	1923..	9,028,240	37·16	44·65	36·81	48·14
1892..	4,889,000	5·79	7·55	7·52	8·65	1924..	9,150,940	37·34	44·43	35·50	40·54
1893..	4,936,000	5·93	7·73	7·46	8·28	1925..	9,268,700	31·71	37·93	34·41	37·84
1894..	4,984,000	5·52	7·29	7·54	8·79	1926..	9,389,693	34·89	40·78	34·15	37·85
1895..	5,034,000	5·04	6·75	7·58	8·52	1927..	9,519,220	36·42	42·07	33·57	37·61
1896..	5,086,000	5·45	7·20	7·26	8·67	1928..	9,658,000	37·76	44·49	34·81	39·91
1897..	5,142,000	5·55	7·36	7·46	8·36						

[1] See the tables on pp. 798-801 for the figures on which this table is based.

.—Per Capita Revenue Receipts and Expenditure, by Principal Items, 1922-1928.

RECEIPTS.

NOTE.—See Table 2 on p. 796 for the figures on which this Table is based.

Items of Receipts.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Consolidated Fund Receipts—	$	$	$	$	$	$	$
TAXATION—							
Customs	11·86	13·08	13·28	11·67	13·56	14·91	16·25
Excise	4·13	3·96	4·17	4·17	4·57	5·10	5·94
War Tax Revenue—							
Banks	0·15	0·14	0·14	0·13	0·13	0·12	0·13
Trust and Loan Companies	0·03	0·04	0·03	0·03	0·03	0·04	0·04
Insurance Companies	0·08	0·09	0·09	0·09	0·10	0·10	0·10
Business Profits	2·56	1·44	0·52	0·29	0·13	0·08	0·10
Income Tax	8·83	6·61	5·92	6·07	5·92	4·98	5·86
Sales Tax, Tax on Cheques, Transportation Tax, etc	8·27	11·80	13·19	9·26	10·45	11·09	9·34
Total from Taxation	**35·91**	**37·16**	**37·34**	**31·71**	**34·89**	**36·42**	**37·76**
NON-TAX REVENUE—							
Interest on Investments	2·47	1·82	1·30	1·22	0·91	0·90	1·13
Post Office	2·96	3·21	3·15	3·11	3·23	3·05	3·27
Other Revenue	1·53	1·51	1·57	1·38	1·52	1·51	1·61
Total Consolidated Fund Receipts	42·87	43·71	43·37	37·42	40·55	41·88	43·77
Special Receipts	0·04	0·94	1·06	0·51	0·23	0·19	0·72
Grand Total Receipts	**42·91**	**44·65**	**44·43**	**37·93**	**40·78**	**42·07**	**44·49**

EXPENDITURE.

NOTE.—See Table 3 on pp. 793-797 for the figures on which this Table is based.

Items of Expenditure.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$	$	$
Agriculture and Arts	0·65	0·69	0·74	0·62	0·61	0·61	0·67
Charges on Debt	15·64	15·38	15·00	14·63	14·01	13·73	13·44
Civil Government	1·12	1·12	1·15	1·12	1·15	1·14	1·20
Customs and Excise	0·75	0·72	0·74	0·83	1·03	1·06	1·22
Dominion Lands	0·47	0·47	0·40	0·37	0·39	0·45	0·42
Immigration	0·18	0·22	0·26	0·30	0·25	0·25	0·28
Indians	0·33	0·34	0·39	0·39	0·39	0·41	0·43
Legislation	0·43	0·29	0·25	0·26	0·45	0·48	0·21
National Defence (Militia, Naval and Air Services)	1·78	1·46	1·35	1·26	1·34	1·36	1·64
Pensions	4·06	3·65	3·65	3·76	3·96	3·98	4·12
Post Office	3·16	3·08	3·09	3·22	3·25	3·26	3·29
Public Works, Income	1·19	1·11	1·30	1·30	1·43	1·17	1·45
Royal C. M. Police	0·33	0·27	0·27	0·22	0·22	0·22	0·24
Soldiers' Civil Re-establishment	1·92	1·44	1·09	0·95	0·82	0·73	0·72
Soldiers' Land Settlement	0·24	0·19	0·17	0·15	0·13	0·13	0·14
Subsidies to Provinces	1·37	1·35	1·35	1·33	1·32	1·32	1·29
Trade and Commerce	0·41	0·27	0·31	0·41	0·43	0·39	0·36
Other Ordinary Expenditure	4·98	4·76	3·99	3·29	2·97	2·88	3·69
Total Ordinary Expenditure	**39·01**	**36·81**	**35·50**	**34·41**	**34·15**	**33·57**	**34·81**
Special Expenditure	0·21	0·94	0·91	0·48	0·69	0·83	0·35
Other Disbursements—							
Capital Expenditure	1·83	1·09	1·19	1·79	1·79	2·05	2·14
Advances to Railways and Merchant Marine	11·00	9·29	2·75	1·17	1·14	1·10	0·10
Miscellaneous	−0·02	0·02	0·15	0·04	0·06	0·12	1·81
Grand Total Expenditure	**52·03**	**48·15**	**40·50**	**37·89**	**37·83**	**37·67**	**39·21**

Subsection 3.—War Tax Revenue.

An account of the various war taxes imposed in 1915 and subsequently has already been given on pp. 792-793 in the introduction to this section. For convenience of reference, the amounts received from these taxes since the beginning are segreg-

ated and the totals paid in to the Receiver-General are given in Table **8.** T taxes imposed on banks, trust and loan companies and insurance companies a collected by the Department of Finance. The excise war taxes, the business pro war tax and the income war tax are collected by the Department of Nati Revenue, formerly the Customs and Excise Department. The amounts of ex war taxes collected from different sources in the last six fiscal years are given in T **9,** while Table **10** contains the details by provinces for the latest year. The amou collected in income war tax and business profits war tax are given by provinces f the two latest fiscal years in Table **11.** (See also Tables **33** to **35** of this chap

8.—War Tax Revenue received during the fiscal years ended Mar. 31, 1915-1928.

Years.	Banks.	Trust and Loan Companies.	Insurance Companies.	Business Profits.	Income Tax.	Customs and Excise Department.[1]	Total War Tax Revenue
	$	$	$	$	$	$	$
1915	–	–	–	–	–	98,057	98,
1916	1,300,447	324,250	459,247	–	–	1,536,838	3,620,
1917	1,114,023	202,415	419,699	12,506,517	–	2,059,584	16,302,
1918	1,115,758	269,129	495,540	21,271,084	–	2,227,390	25,379,
1919	1,099,764	323,340	546,114	32,970,062	9,349,720	11,888,508	56,177,
1920	1,170,223	274,216	638,731	44,145,184	20,263,740	15,587,707	82,079,
1921	1,257,534	293,802	807,667	40,841,401	46,381,824	78,803,099	168,385,
1922	1,293,697	283,994	749,959	22,815,667	78,684,355	73,656,489	177,484,
1923	1,244,437	312,392	852,328	13,031,462	59,711,538	106,482,718	181,634,
1924	1,236,957	308,632	857,587	4,752,681	54,204,028	120,676,376	182,036,
1925	1,217,754	315,315	867,902	2,704,427	56,248,043	85,810,717	147,164,
1926	1,176,869	326,714	950,221	1,173,449	55,571,962	98,097,106	157,296,
1927	1,174,665	335,368	947,830	710,102	47,386,309	105,613,160	156,167,
1928	1,224,645	345,430	999,003	956,031	56,571,047	90,222,931	150,319,
Total	**15,626,773**	**3,914,997**	**9,592,828**	**197,878,067**	**484,372,566**	**792,760,680**	**1,504,145,**

[1] Amounts paid in to Receiver-General.

9.—Summary of Excise War Taxes collected by the Department of Customs a Excise (now the Department of National Revenue), during the fiscal years end Mar. 31, 1923-1928.

(Accrued Revenue.)

Items.	1923.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$	$
Licenses	68,420	58,020	36,211	35,666	37,036	35,
Stamps	5,018,449	8,175,301	8,691,332	9,278,589	8,880,517	4,411,
Matches	2,676,847	2,602,109	2,403,924	2,191,999	2,874,728	3,148,
Automobiles	1,362,597	2,689,400	2,410,879	3,474,991	2,208,582	838,
Confectionery	442,271	176,564	–	–	–	
Playing cards	266,627	176,760	203,282	277,929	286,022	224,
Cigars	289,524	357,495	323,557	321,807	311,701	320,
Wines	159,370	151,580	66,840	95,459	118,080	170,
Ale, beer and porter	2,612,463	4,234,539	4,669,337	5,466,628	5,198,503	6,320,
Beverages and carbonic acid gas	372,235	162,282	38,938	38,279	27,550	
Transportation	2,234,091	2,400,431	2,420,930	2,404,371	2,452,780	2,534,
Embossed cheques	161,601	305,445	309,345	345,013	368,238	174,
Embossed cheques (Departmental)	355,141	352,120	311,357	149,585	76,521	174,
Penalties and interest	–	–	–	–	–	146,
Sales, domestic	62,685,520	71,834,937	51,253,498	57,253,867	63,940,130	55,379,
Other domestic war tax revenue	–	–	13,853	–	–	
Domestic Total	**78,645,156**	**93,676,983**	**73,153,281**	**81,334,184**	**86,780,388**	**72,880,**
Importations—						
Sales	28,576,735	29,155,141	15,453,872	16,771,226	18,365,540	16,721,
Excise	768,002	836,723	723,685	1,122,924	1,577,400	2,060,
Gross Total Excise Taxes	**107,989,893**[1]	**123,668,847**[1]	**89,330,838**[1]	**99,228,334**[1]	**106,723,328**[1]	**91,662,**

[1] Includes refunds, etc., $1,507,175 in 1923, $2,992,471 in 1924, $3,520,120 in 1925, $1,131,229 in 19 $1,110,168 in 1927 and $1,439,155 in 1928.

10.—Excise War Taxes collected by the Department of National Revenue (formerly the Customs and Excise Department), by Provinces, during the fiscal year ended Mar. 31, 1928.

(Accrued Revenues.)

Provinces.	Licenses.	Stamps.	Matches.	Automobiles.	Sales.
	$	$	$	$	$
Prince Edward Island	322	13,452	–	–	27,910
Nova Scotia	1,146	103,151	5,303	26	830,142
New Brunswick	1,118	81,186	2,920	426	555,013
Quebec	10,200	1,381,827	1,223,269	8,196	18,217,969
Ontario	16,713	1,769,674	836,244	821,998	30,521,325
Manitoba	1,274	307,846	17,770	2,236	1,880,229
Saskatchewan	450	221,779	24,002	59	260,929
Alberta	1,048	222,263	19,206	2,302	879,397
British Columbia	3,560	309,133	19,717	3,043	2,205,204
Yukon	8	775	–	–	966
Total	**35,839**	**4,411,086**	**2,148,431**	**838,286**	**55,379,084**

Provinces.	Playing Cards.	Cigars.	Wines.	Ale, Beer and Porter.	Transportation.
	$	$	$	$	$
Prince Edward Island	–	–	–	–	–
Nova Scotia	–	150	–	25,814	15,781
New Brunswick	–	237	–	33,051	1,295
Quebec	81,360	176,975	3,076	3,601,184	2,023,604
Ontario	143,500	137,065	162,247	1,179,631	425,618
Manitoba	–	120	117	370,299	17,976
Saskatchewan	–	7	–	166,915	5
Alberta	–	283	–	527,036	8,357
British Columbia	–	5,790	5,547	416,660	42,335
Yukon	–	–	–	–	11
Total	**224,860**	**320,627**	**170,987**	**6,329,590**	**2,534,982**

Provinces.	Embossed Cheques and Receipts.	Penalties and Interest.	Domestic Total.	Importations.		Total.
				Sales.	Excise.	
	$	$	$	$	$	$
Prince Edward Island	–	90	41,775	27,513	5,536	74,824
Nova Scotia	1,039	1,287	983,839	333,193	51,437	1,368,469
New Brunswick	7,941	1,064	684,251	373,259	30,001	1,087,511
Quebec	51,864	71,929	26,851,453	4,031,562	430,552	31,343,567
Ontario	69,949	51,408	36,135,371	6,930,703	1,113,654	44,179,728
Manitoba	29,009	6,615	2,633,490	1,462,806	103,269	4,199,565
Saskatchewan	1,704	1,970	677,821	727,806	85,451	1,491,078
Alberta	1,241	2,015	1,663,147	697,084	86,870	2,447,101
British Columbia	11,606	10,405	3,033,000	2,093,053	152,971	5,279,024
Yukon	–	–	1,761	12,418	320	14,499
Total	**174,353**	**146,783**	**72,705,908**	**16,719,397**	**2,060,061**	**91,485,366**
British Post Office Parcels	–	–	–	1,763	–	1,763
Embossed Cheques (Departmental)	174,957	–	174,957	–	–	174,957
Grand Total	**349,310**	**146,783**	**72,880,865**	**16,721,160**	**2,060,061**	**91,662,086**[1]

[1]Includes refunds of $1,439,155.

11.—Amounts collected under the Income War Tax Act and the Business Profi War Tax Act, by Provinces, fiscal years ended Mar. 31, 1927 and 1928.

Provinces.	1927.			1928.		
	Income War Tax.	Business Profits War Tax.	Total.	Income War Tax.	Business Profits War Tax.	Total.
	$	$	$	$	$	$
Prince Edward Island	28,160	–	28,160	37,933	7,307	45 2
Nova Scotia	539,843	18,723	558,566	549,413	51,649	601 0
New Brunswick	524,820	11,426	536,246	655,234	35,313	690 5
Quebec	15,587,882	116,912	15,704,794	19,061,843	233,369	19,29 2
Ontario	22,631,659	287,199	22,918,858	25,614,930	511,373	26.12 3
Manitoba	2,393,250	105,758	2,499,008	3,141,123	20,151	3,161 2
Saskatchewan	658,257	30,860	689,117	775,075	29,316	804 3
Alberta	1,170,952	40,697	1,211,649	1,273,786	15,501	1,289 2
British Columbia	3,832,152	98,527	3,930,679	5,440,359	47,626	5,487 9
Yukon	19,334	–	19,334	21,351	–	21 3
Foreign	–	–	–	–	4,427	4 4
Total	**47,386,309**	**710,102**	**48,096,411**	**56,571,047**	**956,032**	**57,527,0**

Subsection 4.—Inland Revenue.

Under the Inland Revenue Act (R.S. 1906, c. 5), the Department of Inlan Revenue until 1918 had the control and management of standard weights an measures and of the collection of excise duties, of stamp duties, internal taxe bridge and ferry tolls and rents. It administered the statutes which dealt wit the adulteration of food and other articles, electricity and gas inspection, pate medicines, petroleum, naphtha and the analysis of fertilizers and feeding stuff This Department also established the food standards, which were put into forc by Orders in Council under the authority of section 26 of the Adulteration Ac By Order in Council dated May 18, 1918, the Department of Customs and th Department of Inland Revenue were amalgamated and combined under the nam of the Department of Customs and Inland Revenue, under one Minister of th Crown. By Order in Council dated June 3, 1918, the administration of the Ga Electric Light and Weights and Measures Inspection Acts, the Adulteration Food, Commercial Feeding Stuffs, Fertilizers, Proprietary and Patent Medici and Inspection of Water Meters Acts was transferred to the Department of Tra and Commerce, as from Sept. 1, 1918. On June 4, 1921, the Department of Custom and Inland Revenue was consolidated as the Department of Customs and Exci (11-12 George V, c. 26).

As from April 1, 1927, the name of this Department, which collects the gre bulk of the revenue of the Dominion, was changed to Department of Nation Revenue, by authority of 17 Geo. V, c. 34. This Act provides for three ch officers of the Department—the Commissioner of Customs, Commissioner Excise and Commissioner of Income Tax, while an Assistant Commissioner Customs may also be appointed. In the fiscal year ended Mar. 31, 1928, the gro amount of customs duties collected by the Department was $171,868,959, compared with $158,966,369 in 1927 and $143,929,093 in 1926. The total of exci duties and excise war taxes collected in the fiscal year ended Mar. 31, 1928, w $149,724,171, as compared with $155,863,241 in 1927 and $142,598,565 in 192 The total of income tax collected in the fiscal year ended Mar. 31, 1928, was $56 571,047, and of business profits war tax $956,031.

Canadian Excise Tariff.—The following is a statement of the Canadian excise tariff, as existing on July 1, 1928:—

Spirits—	
When made from raw grain, per proof gal.	$ 9·00
When made from malted barley "	9·02
When made from imported molasses or other sweetened matter free of customs duty, per proof gal.	9·03
Malt, per lb.	0·03
Malt, imported, crushed or ground, per lb.	0·05
Malt liquor, when made in whole or part from any other substance than malt, per gal.	0·15
Tobacco, per lb.	$ 0·20
Cigarettes, weighing not more than 3 lb. per thousand	6·00
Cigarettes, weighing more than 3 lb. per thousand	11·00
Foreign raw leaf tobacco, unstemmed, per standard lb.	0·40
Foreign raw leaf tobacco, stemmed, per standard lb.	0·60
Canada twist tobacco, per lb.	0·20
Snuff, per lb.	0·20
Cigars, per thousand	3·00

When however, any person is licensed by the Minister of Customs and Excise to manufacture patent and proprietary medicines, extracts, essences and pharmaceutical preparations by the use of spirits in bond, subject to the Excise Act and regulations thereunder, the following duties of excise are collected:—when made from raw grain, $2.40 per proof gallon; when made from malted barley, $2.42 per proof gallon; when made from imported molasses or other sweetened matter free of customs duty, $2.43 per proof gallon. Druggists licensed by the Minister of National Revenue to prepare prescriptions for medicines and pharmaceutical preparations, are also allowed to use limited quantities of spirits testing not less than 50 p.c. over proof, on payment of the above lower manufacturers' rates of duty. A drawback of 99 p.c. of the duty may be granted when domestic spirits testing not less than 50 p.c. over proof are delivered in limited quantities to universities, scientific or research laboratories, or to hospitals for medicinal purposes only.

Revenue from Excise Duties.—The inland revenue collected from excise duties, other than war taxes, is shown by items for the last six fiscal years in Table 12. Tobacco, including cigarettes, is shown by the figures to be supplying about 60 p.c. of the revenue from excise duties.

12.—Details of Excise Duties collected during the fiscal years ended Mar. 31, 1923-1928.

(Accrued revenues as shown in the Report of the Commissioner of Excise.)

Items.	1923.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$	$
Spirits	7,985,808	9,371,063	9,393,661	10,932,578	13,904,584	18,267,537
Malt liquor	60,331	93,072	107,734	113,933	223,833	239,245
Malt	2,549,601	3,280,057	3,540,621	3,840,774	3,811,557	4,277,066
Tobacco	25,013,128	25,236,296	25,421,602	27,919,051	30,638,418	34,702,359
Cigars	622,035	608,685	561,606	539,300	536,845	549,896
Acetic acid	100	100	100	100	150	150
Manufactures in bond	18,225	18,725	17,675	17,250	17,350	17,700
Other receipts	10,426	8,040	7,344	7,245	7,176	8,170
Totals	**36,259,654**	**38,616,038**	**39,005,343**	**43,370,231**	**49,139,913**	**58,062,123**

Statistics of Licenses and Distillation.—As a by-product of the collection of excise duties, statistics are compiled of excise licenses issued and of distillation; figures for recent years are given in Tables 13 and 14.

13.—Number of Excise Licenses issued during the fiscal years ended Mar. 31, 1922-1928.

Description.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Distillers	10	11	14	16	18	20	2
Brewers and maltsters	79	74	75	79	87	93	1
Tobacco manufacturers	81	76	73	70	65	56	5
Cigar manufacturers	152	140	126	113	110	106	1
Petroleum refineries	14	16	16	18	21	21	2
Manufacturers in bond—							
Vinegar distillers	1	–	–	–	–	–	–
Perfumes, pharmaceutical preparations, etc	334	354	371	348	343	345	3
Chemical stills	149	163	166	164	156	151	1
Wood alcohol manufacturers	12	9	6	7	8	6	
Malt vinegar brewers	3	3	3	3	3	3	
Still manufacturers and importers	14	10	16	17	18	24	2
Acetic acid manufacturers	2	2	2	2	2	3	
Bonded warehouses	45	49	50	46	41	42	4
Rectifiers	1	1	1	1	1	–	–
Compounders	–	–	2	2	2	3	
Canadian leaf stemmers	–	–	–	–	–	8	

14.—Statistics of Distillation for the fiscal years ended Mar. 31, 1923-1928.

Schedule.	1923.	1924.	1925.	1926.	1927.	1928.
Licenses issued.....No.	12	14	16	18	20	2
License fees..... $	2,750	3,375	4,125	4,500	5,000	6,12
Grain, etc., for distillation—						
Malt..... lb.	4,222,031	4,847,035	8,549,177	6,109,455	12,650,807	25,116,10
Indian corn..... "	12,596,833	25,969,850	48,524,438	37,496,955	62,478,906	78,871,58
Rye..... "	9,936,928	11,866,009	18,730,531	12,506,822	21,129,081	53,617,69
Oats and other grain.. "	88,310	138,044	205,412	380,385	283,950	139,18
Wheat..... "	–	1,104,540	222,160	46,800	1,616,020	249,66
Total grain..... "	26,844,102	43,925,478	76,231,718	56,540,417	98,158,764	157,994,22
Molasses..... "	45,009,401	38,894,109	56,277,470	45,051,831	68,847,431	49,801,49
Proof spirits manufactured.....gal.	3,828,879	4,411,896	7,287,691	5,434,329	9,121,051	11,596,20
Duty collected ex-manufactory on deficiencies and assessment—						
Gallons.....	204	638	3,795	6,153	1,585	3,81
Amount..... $	1,840	5,746	34,163	55,480	14,272	34,4
Total duty collected plus license fees..... $	4,590	9,121	38,288	59,980	19,272	40,54

Consumption of Alcohol and Tobacco.—In Tables **15** and **16** are shown the quantities of spirits, malt liquor, malt, cigars, cigarettes and tobacco taken out of bond for consumption in the fiscal years ended 1901 to 1928, and the annual consumption of spirits, beer, wine and tobacco per head of population, together with the duties paid in the same years.

Between 1920 and 1928, the consumption of cigars fell from 270,089,761 to 181,730,614 and of tobacco from 23,049,012 lb. to 21,907,747 lb.; on the other hand, the consumption of cigarettes increased from 2,440,982,912 to 3,927,022,325.

Between 1923 and 1928 the consumption of spirits (exclusive of imported spirits) has risen from 729,678 gal. to 1,896,357 gal., and of malt liquor from 36,789,195 gal. to 58,391,360 gal.

15.—Quantities of Spirits, Malt Liquor, Malt and Tobacco, taken out of Bond for Consumption in the fiscal years ended 1901-1928.

(For earlier years see 1916-17 Year Book, p. 528.)

Fiscal Years.	Spirits.[1]	Malt Liquor.	Malt.	Cigars.	Cigarettes.	Tobacco.[3]
	gal.	gal.	lb.	No.	No.	lb.
1901	2,707,919	25,108,254	64,723,616	141,096,889	121,383,584	11,330,345
1902	2,933,183	27,623,767	71,440,519	151,780,516	134,236,034	11,569,632
1903	2,979,268	25,755,154	67,608,157	168,290,422	176,435,240	12,507,944
1904	3,481,287	27,335,985	75,430,347	180,485,202	211,302,041	12,574,524
1905	3,112,843	30,330,370	75,517,352	186,110,777	250,860,387	13,444,611
1906	3,545,785	33,250,637	85,699,102	193,827,342	269,334,939	14,517,911
1907[2]	3,033,439	26,505,831	69,176,871	154,253,260	266,377,710	11,318,538
1908	3,918,657	38,800,380	98,579,733	200,133,255	384,809,344	15,971,609
1909	3,627,266	37,317,964	92,631,306	192,105,371	356,756,130	17,217,710
1910	3,777,156	38,558,210	95,166,134	205,820,851	451,095,138	17,961,279
1911	4,146,452	41,752,448	101,525,430	227,585,692	585,935,370	18,903,322
1912	4,562,382	47,518,647	114,029,523	252,718,242	782,663,841	21,419,046
1913	4,999,937	52,314,400	123,920,607	294,772,993	977,743,301	22,371,636
1914	4,762,618	56,060,846	133,794,639	288,219,892	1,166,023,170	22,248,760
1915	4,021,090	47,963,225	111,037,743	236,866,542	1,090,125,936	21,180,857
1916	3,629,324	39,638,877	89,476,590	207,647,808	1,082,324,710	20,698,241
1917	4,118,147	34,827,284	78,815,746	239,752,252	1,307,276,750	20,735,080
1918	4,591,972	28,442,427	59,626,049	254,445,945	1,664,709,933	21,780,168
1919	2,941,108	26,024,117	49,184,747	220,590,175	1,553,468,890	19,980,446
1920	3,816,124	36,863,867	69,975,631	270,089,761	2,440,982,912	23,049,012
1921	2,816,071	35,509,757	82,210,351	214,262,197	2,439,832,278	19,389,268
1922	730,474	38,404,346	87,561,176	181,255,533	2,450,397,154	20,528,228
1923	729,678	36,789,195	84,922,024	183,965,151	1,917,773,908	22,072,709
1924	899,291	43,717,823	105,466,169	198,042,909	2,420,052,731	21,172,307
1925	910,316	48,106,177	118,237,385	168,097,387	2,531,693,150	20,870,651
1926	1,082,785	52,443,505	127,789,729	174,363,188	2,883,448,160	21,595,483
1927	1,404,111	51,726,251	126,967,976	175,335,838	3,333,999,860	21,589,772
1928	1,896,357	58,391,360	142,543,947	181,730,614	3,927,022,325	21,907,747

[1]Exclusive of imported spirits. [2]Nine months. [3]Including snuff.

16.—Consumption per head of Spirits, Wine, Beer and Tobacco, and Excise and Customs Duties per head on these Commodities in the fiscal years ended 1901-1928.

(For earlier years see 1916-17 Year Book, p. 529.)

Fiscal Years.	Quantity.				Duty.			
	Spirits[1].	Beer.	Wines.	Tobacco.	Spirits[1]	Beer.	Wines.	Tobacco.
	gal.	gal.	gal.	lb.	$	$	$	$
1901	·749	4·738	·094	2·440	1·574	·195	·047	·864
1902	·773	5·067	·093	2·438	1·631	·211	·048	·902
1903	·798	4·630	·097	2·595	1·766	·200	·049	·967
1904	·897	4·789	·095	2·577	1·913	·217	·049	1·005
1905	·802	5·164	·096	2·680	1·898	·214	·049	1·036
1906	·869	5·512	·099	2·797	1·879	·238	·052	1·100
1907	·723	4·323	·074	2·167	2·035	·257	·054	1·317
1908	·926	6·145	·106	2·947	1·965	·268	·057	1·194
1909	·849	5·707	·095	3·018	1·794	·241	·050	1·101
1910	·873	5·713	·110	3·090	1·843	·242	·057	1·059
1911	·933	5·958	·119	3·183	1·988	·257	·059	1·157
1912	1·032	6·649	·122	3·570	2·170	·288	·063	1·336
1913	1·136	7·220	·145	3·753	2·340	·320	·076	1·462
1914	1·103	7·558	·138	3·721	2·249	·328	·069	1·438
1915	·886	6·234	·102	3·411	2·086	·379	·051	1·361
1916	·739	4·974	·064	3·238	1·951	·362	·033	1·454
1917	·703	4·279	·065	3·307	1·788	·304	·033	1·520
1918	·682	3·425	·063	3·520	1·810	·228	·036	1·698
1919	·395	3·070	·026	3·167	·942	·170	·015	2·520
1920	·608	4·275	·083	3·832	1·586	·243	·056	3·541
1921	·723	4·048	·078	3·283	2·256	·292	·074	3·245
1922	·231	4·316	·052	3·333	1·859	·308	·049	3·254
1923	·204	4·081	·038	3·286	2·006	·287	·057	2·883
1924	·235	4·787	·062	3·323	2·229	·372	·081	2·902
1925	·225	5·200	·073	3·252	2·109	·380	·086	2·884
1926	·267	5·601	·074	3·407	2·505	·405	·092	3·118
1927	·304	5·450	·090	3·503	2·982	·413	·106	3·395
1928	·425	6·070	·122	3·676	4·161	·457	·170	3·726

[1]Includes imported spirits.

Subsection 5.—Provincial Subsidies.

Tables 17 and 18 show the aggregate amounts of the subsidies and other pay ments made by the Dominion to the Provincial Governments for each of the fisc years ended from 1923 to 1928 (Table 17), and the totals paid from Confederatio to date (Table 18). The provincial subsidies payable by the Dominion Gover ment were originally settled by the British North America Act, 1867 (30 and 3 Vict., c. 3, s. 118), but were revised by the British North America Act, 1907 (7 Edw VII, c. 11). Under the revised settlement each Provincial Government recei (a) a fixed grant according to population and (b) a grant at the rate of 80 cents head of the population up to 2,500,000, and at the rate of 60 cents per head of much of the population as exceeds that number. The Province of British Colum received an additional grant of $100,000 per annum for a period of 10 years fr 1907.[1] An additional grant of $100,000 per annum is payable to Prince Edwar Island under an Act of 1912 (2 Geo. V, c. 42), and the payments to Manitoba w revised by the Extension of Boundaries (Manitoba) Act (2 Geo. V, c. 32). Oth payments to the Provincial Governments by the Dominion Government consi of special grants, such as compensation for lands, allowances for buildings, allow ances in lieu of debt, etc.

[1]See Canada Year Book, 1907, pp. xxxiii—iv.

17.—Subsidies and other Payments of Dominion to Provincial Governments, fisc years ended 1923-1928.

Provinces.	1923.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$	$
Prince Edward Island	381,932	381,932	381,932	381,932	381,932	381,9
Nova Scotia	661,866	661,866	661,854	661,841	661,841	661,8
New Brunswick	666,766	666,766	666,766	666,766	666,766	666,7
Quebec	2,256,420	2,256,420	2,256,420	2,256,420	2,256,420	2,256,4
Ontario	2,642,612	2,642,612	2,642,612	2,642,612	2,642,612	2,642,6
Manitoba	1,466,380	1,485,118	1,501,551	1,501,551	1,491,836	1,491,8
Saskatchewan	1,763,883	1,901,069	1,757,005	1,850,755	2,032,575	2,032,8
Alberta	1,628,638	1,651,537	1,674,435	1,674,435	1,643,942	1,643,9
British Columbia	738,816	738,816	738,816	738,816	738,816	738,8
Total	**12,207,313**	**12,386,136**	**12,281,391**	**12,375,128**	**12,516,740**	**12,516,7**

18.—Total of Subsidy Allowances from July 1, 1867, to Mar. 31, 1928.

Provinces.	Allowance for Government.	Allowance per head of Population.	Special Grants.[2]	Interest on Debt Allowance.[3]	Total.
	$	$	$	$	$
Prince Edward Island	3,120,000	4,701,867	3,729,025	2,331,318	13,882,2
Nova Scotia	6,390,000	20,823,970	826,980	2,866,082	30,907,0
New Brunswick	5,780,000	15,887,448	8,880,000	1,238,345	31,766,7
Quebec	7,840,000	70,090,996	–	4,432,028	82,363,0
Ontario	8,240,000	87,621,367	–	4,031,617	99,892,9
Manitoba	5,595,000	13,481,485	12,009,684	11,061,114	42,147,2
Saskatchewan	4,176,667	11,026,844	12,656,250	9,323,625	37,183,3
Alberta	4,016,667	8,651,199	11,812,500	9,323,625	33,803,9
British Columbia	4,990,000	9,252,139	6,700,000	1,671,394	22,613,5
Total	**50,148,334**	**241,517,315**	**56,614,439**	**46,279,648**	**394,559,7**

[2]Compensation for lands and allowances for buildings. [3]Allowances in lieu of debt.

Subsection 6.—National Debt.

The gross national debt of Canada on Mar. 31, 1914, was $544,391,369, against assets of $208,394,519, leaving a net debt of $335,996,850. Comparatively small as was this debt, it was a debt incurred almost altogether either for pub works of general utility which, like the Intercolonial and Transcontinental railwa and the canal system, remained assets, though perhaps not realizable assets of t

nation, or was expended as subsidies to enterprises, which, like the Canadian Pacific railway, though not government-owned, assisted greatly in extending the area of settlement as well as the productive and, therefore, the taxable capacity of the country. Broadly speaking, it was a debt incurred for productive purposes. Also, it was mainly held outside the country, the principal of the Dominion funded debt payable in London being $302,842,485 on Mar. 31, 1914, as against only $717,453 payable in Canada.

The great changes brought about during the 14 years from 1914 to 1928 in our national debt have been:—(1) the enormous increase in net debt from $335,996,850 to $2,296,850,233; (2) as having been largely incurred for war purposes, the gross debt is not represented by corresponding assets; (3) the debt is now mainly held in Canada, $1,870,049,325 being payable in Canada at Mar. 31, 1928; (4) the average rate of interest paid on interest-bearing debt has been considerably increased, the interest-bearing debt on Mar. 31, 1914, being $416,892,576, with an annual interest charge of $14,687,797, the average interest rate being thus only 3·52 p.c., while on Mar. 31, 1922, the interest-bearing debt was $2,669,967,110, with an interest charge of $137,881,774, the average rate of interest paid being 5·164 p.c. Had the rate of interest in 1922 been the same as in 1914, the interest charge in that year would have been some $44,000,000 less than it actually was. Since 1922, the maturity of certain loans has enabled the Government to refund at lower and more normal peace-time rates of interest, with the result that the average rate of interest payable on the national debt has been slowly declining, standing at 4·980 p.c. on Mar. 31, 1928. Further, in these same six years the principal sum of the interest-bearing debt has been reduced by $155,900,542. The net result of these two achievements is that the annual interest charge has in the last six years been reduced by the substantial amount of $12,681,044.

The *interest-bearing* debt, the annual interest charge upon that debt and the average rate of interest, as at the end of each of the last nine fiscal years, have been as follows:—

Dates.	Bonds, debentures and treasury bills.	Annual interest charges on bonds, debentures and treasury bills.	Savings bank deposits, trust and other funds.	Annual interest on savings bank deposits and other funds.	Total interest bearing debt.[1]	Annual interest charge.	Average rate of interest.
March 31,	$	$	$	$	$	$	p.c.
1920	2,596,816,821	134,559,302	107,038,317	4,275,480	2,703,855,138	138,834,782	5·134
1921	2,520,997,021	130,416,007	107,345,348	4,429,302	2,628,342,369	134,845,309	5·130
1922	2,564,587,671	133,482,113	105,379,439	4,399,661	2,669,967,110	137,881,774	5·164
1923	2,547,105,821	131,476,511	106,763,391	4,531,156	2,653,869,212	136,007,667	5·125
1924	2,504,033,820	128,571,337	110,113,766	4,626,715	2,614,147,586	133,198,052	5·092
1925	2,503,763,169	125,928,071	113,943,282	4,758,780	2,617,706,451	130,686,851	4·992
1926	2,484,410,336	125,108,738	119,205,393	4,977,889	2,603,615,729	130,086,627	4·996
1927	2,439,340,736	123,399,911	126,310,527	5,274,429	2,565,651,263	128,674,340	5·015
1928	2,377,581,086	119,479,400	136,485,482	5,721,330	2,514,066,568	125,200,730	4·980

[1]The total of interest-bearing debt, as here given, includes bonds purchased and held by the Treasury for sinking funds.

Since Mar. 31, 1928, the *interest-bearing* debt of Canada has been reduced by paying off $46,746,000 of 5 p.c. bonds which fell due on Oct. 15, 1928, the redemption of these bonds involving a reduction of $2,337,300 in the annual interest charge. In his budget speech of Mar. 1, 1929, the Minister of Finance announced his intention of paying off out of surplus revenue $60,000,000 of the 5½ p.c. loan of 1919 falling due Aug. 1, 1929, thus saving $3,300,000 a year in interest.

A summary account of the loans effected between 1914 and 1926 is appended.

War and Renewal Loans.—The first Dominion domestic war loan was raised in November, 1915, under authority of c. 23 of the Statutes of that year (5 Geo. V, c. 23). It originally consisted of $50,000,000 5 p.c. tax-exempt 10-year gold bonds issued at 97½ and maturing Dec. 1, 1925. As the issue was heavily over-subscribed (public subscriptions by 24,862 subscribers $78,729,500, bank subscriptions $25,000,000), and the extra money was needed, the Government increased the amount of the loan to $100,000,000. In July, 1915, $25,000,000 of 1-year and $20,000,000 of 2-year 5 p.c. notes had been floated in the United States, with the object of stabilizing exchange and relieving the pressure on London.

In September 1916, the second Canadian domestic war loan of $100,000,000 5 p.c. tax-exempt 15-year gold bonds was issued and again over-subscribed (public subscriptions by 34,526 subscribers $151,444,800, bank subscriptions, $50,000,000). In March of that year, a loan of $75,000,000 in 5, 10 and 15-year 5 p.c. bonds had been floated in New York.

The third Canadian domestic war loan, composed of $150,000,000 5 p.c. tax-exempt 20-year gold bonds, was issued at 96 in March, 1917, and was again over-subscribed, 40,800 public subscribers applying for $200,768,000, while the banks subscribed $60,000,000. In August, 1917, $100,000,000 of 5 p.c. 2-year notes were issued in New York at 98.

The fourth domestic war loan (First Victory Loan), was issued in November 1917. For the first time subscriptions as low as $50 were received towards an issue of $150,000,000 5½ p.c. 5, 10 and 20-year gold bonds, the Minister of Finance reserving the right to allot the whole or any part of the amount subscribed in excess of $150,000,000. The subscribers numbered 820,035, and the subscriptions totalled $398,000,000, or about $50 per head of the then population of Canada.

The fifth domestic war loan (Second Victory Loan), of $300,000,000 5½ p.c. 5 and 15-year tax-exempt gold bonds, was issued at 100 and interest as of date Nov. 1, 1918; the end of the war, then clearly in sight, stimulated subscriptions. The applications numbered 1,067,879 and totalled $660,000,000.

The sixth domestic war loan (Third Victory Loan) was raised at 100 and interest in November, 1919. It consisted of $300,000,000 taxable 5-year and 15-year 5½ p.c. gold bonds. The subscriptions amounted to $678,000,000.

A 5½ p.c. renewal loan, aggregating $114,464,150 and due in 1927 and 1932, was floated in Canada in the autumn of 1922 to pay off the maturing 5-year Victory Loan bonds of 1917. Largely for the same purpose, a $100,000,000 5 p.c. loan was issued in New York.

In the autumn of 1923, a second renewal loan of $200,000,000 at 5 p.c. was issued in Canada to pay off the maturing 5-year Victory Loan bonds of 1918.

Refunding operations in 1924, to retire $107,955,650 5-year Victory bonds, issued in 1919, and to redeem treasury bills held by banks, took the form of a domestic issue of $50,000,000 4½ p.c. 20-year bonds and $35,000,000 4 p.c. 2-year notes, and a short term issue in the New York market of $90,000,000 4 p.c. 1-year treasury notes. An issue of $24,000,000 in 4 p.c. 1, 2 and 3-year notes ($8,000,000 of each) was also made in November, 1924.

A refunding loan of $75,000,000 at 4½ p.c. due 1940 was issued in Canada in September, 1925, and 4 p.c. 1-year notes amounting to $70,000,000 in New York. Securities redeemed included £5,000,000 4½ p.c. bonds due in London, $90,000,000 4 p.c. notes due in New York, also $8,000,000 4 p.c. notes and $42,014,500 5 p.c. bonds of the 1915 war loan due in Canada.

In 1926, refunding issues dated Feb. 1 were made as follows:—in Canada, $20,000,000 4½ p.c. 4-year bonds and $45,000,000 4½ p.c. 20-year bonds; in New

York, $40,000,000 4½ p.c. 10-year bonds. Maturing securities included $25,000,000 5 p.c. bonds due in New York April 1, and $70,000,000 4 p.c. notes, called for redemption April 1.

In 1927, $45,000,000 of 4 p.c. treasury notes due Dec. 1, 1930, were issued in order to retire maturing 5½ p.c. obligations.

The general result of these loans has been that in 1929 the great bulk of the Canadian national debt is owing to the Canadian people. At the end of the fiscal year 1927-28 the net funded debt of Canada payable in London was $264,230,350, that payable in New York was $225,879,000, while the net funded debt payable in Canada amounted to no less than $1,870,049,325. The largest creditors of the Dominion Government are within the Dominion itself, and, as a consequence, the interest payments made on national debt account outside the country are a relatively small item. Summary and detailed statistics of the national debt as on Mar. 31, 1928, are given with comparative figures for previous years in Tables **19** to **22**, while Table **23** shows the principal and interest of the national debt at Confederation and in each subsequent fiscal year.

19.—Summary of the Public Debt of Canada, Mar. 31, 1922-1928.

Items.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$	$	$
Total debt	2,902,347,137	2,888,827,237	2,819,610,470	2,818,066,523	2,768,779,184	2,726,298,717	2,677,137,243
Active assets	480,211,335	435,050,368	401,827,195	400,628,837	379,048,085	378,464,347	380,287,010
Net Debt	**2,422,135,802**	**2,453,776,869**	**2,417,783,275**	**2,417,437,686**	**2,389,731,099**	**2,347,834,370**	**2,296,850,233**
Interest paid on debt	135,247,849	137,892,735	136,237,872	134,789,604	130,691,493	129,675,367	128,902,945
Interest received on investments	21,961,513	16,465,303	11,916,479	11,332,328	8,535,086	8,559,401	10,937,822

20.—Details of the Assets of the Public Debt of Canada, Mar. 31, 1924-1928.

Items.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$
Cash on hand and in banks	43,612,756	27,068,121	24,811,236	22,182,119	45,829,382
Specie reserve	103,427,038	123,976,668	99,093,810	100,935,933	95,352,703
Advances to banks, provinces, etc	92,418,747	88,922,335	93,678,049	97,452,299	114,752,859
Advances to Imperial and Foreign Govts.	40,071,243	36,633,691	36,495,929	35,985,138	31,249,720
Advances to Soldier Settlement Board	86,728,789	87,749,947	87,536,094	84,149,967	69,410,199
Miscellaneous current accounts	35,568,622	36,278,075	37,432,957	37,758,891	23,692,147
Total	**401,827,195**	**400,628,837**	**379,048,085**	**378,464,347**	**380,287,010**

21.—Details of the Gross Liabilities of Canada, Mar. 31, 1924-1928.

Items.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$
Funded debt payable in—					
London	301,786,046[1]	274,447,490[1]	270,962,177[1]	267,649,036[1]	264,230,350[1]
Canada	1,895,088,856[1]	1,895,112,087[1]	1,920,128,841[1]	1,941,852,161[1]	1,870,049,325[1]
New York	210,932,000	300,874,000	280,874,000	225,894,000	225,879,000
Dominion notes	216,625,004	206,712,088	182,583,404	172,167,639	188,631,490
Savings banks	34,211,540	33,611,133	32,830,514	31,922,043	31,103,776
Temporary loans	91,520,000	28,196,769	201,000	201,000	201,000
Bank note circulation redemption fund	6,225,878	6,338,346	5,894,254	5,849,030	5,929,219
Trust funds	19,327,244	19,307,853	18,665,350	18,460,169	19,755,617
Province accounts	9,624,153	9,623,817	9,623,817	9,623,816	9,623,817
Miscellaneous	34,269,749	43,842,940	47,015,798	52,679,823	61,733,649
Total	**2,819,610,470**	**2,818,066,523**	**2,768,779,185**	**2,726,298,717**	**2,677,137,243**

[1]Net figures, with amounts held as sinking funds deducted.

22.—Funded Debt Payable in London, New York and Canada, together with Temporary Loans, as at Mar. 31, 1928.

Description.	Amount.	Annual Interest payable thereon.	Date of Maturity.
	$	$	
PAYABLE IN LONDON.			
4 per cent loan of 1940-60	93,926,667	3,757,067	October 1, 1960 (on or after Oct. 1, 1940, giving 3 months' notice)
3½ " " 1884	23,467,206	821,352	On giving 6 months' notice, on June 1, 1934.
3½ " " C P Ry. land grant	15,056,007	526,960	July 1, 1938.
3½ " " 1930-50	137,058,841	4,797,059	July 1, 1950 (on or after July 1 1930, on giving 6 months' notice)
3 " " 1888	8,071,230	242,137	July 1, 1938.
3 " " 1892	18,250,000	547,500	July 1, 1938.
3 " " 1894	10,950,000	328,500	July 1, 1938.
2½ " " 1897	4,888,186	122,205	October 1, 1947.
Gross Total	**311,668,136**	**11,142,780**	
Less Sinking Funds	47,437,786		
Net Total	**264,230,350**	–	
PAYABLE IN NEW YORK.			
5 per cent Bond Loan, 1915-1935	874,000	43,700	August 1, 1935.
5 " Public Service Loan, 1916	5,000	–	Overdue.
5 " " " "	25,000,000	1,250,000	April 1, 1931.
5 " Bond Loan, 1922-52	100,000,000	5,000,000	May 1, 1952.
5½ " " 1919-1929	60,000,000	3,300,000	August 1, 1929.
4½ " Ten Year Bonds	40,000,000	1,800,000	February 1, 1936.
Total	**225,879,000**	**11,393,700**	
PAYABLE IN CANADA.			
Provincial Notes, Nova Scotia	39,184	–	
Unpaid Warrants, Prince Edward Island	550	–	
Compensation to Seigneurs	12,140	605	
Compensation to Townships	153	8	
Province of New Brunswick, 6 per cent Loan Debentures	600	–	Overdue.
Province of Canada, 5 per cent Loan Deb	400	–	"
Dominion Stock, issue A, 6 per cent	4,000	240	—
" " B, 3½ "	20,800	728	Various dates.
" " C, 3½ "	48,667	1,703	"
Debenture Stock, 1919	1,000	–	Overdue.
" 5 per cent (School Lands)	28,964,000	1,448,200	—
" 1921	200	–	Overdue.
War Savings Certificates	20,155	–	"
Dominion of Canada Savings Certificates	19,825	–	"
War Savings and Thrift Stamps	104,829	–	"
Dominion of Canada War Loan, 1915-25, 5 p.c.	76,600	–	"
" " 1916-31, 5 p.c.	52,931,600	2,646,580	Oct. 1, 1931.
" " 1917-37, 5 p.c.	90,166,900	4,508,345	Mar. 1, 1937.
Victory Loan, 1917, 5½ per cent, due 1922	121,000	–	Overdue.
" " due 1927	1,303,700	–	"
" " due 1937	236,299,850	12,996,492	Dec. 1, 1937.
Victory Loan, 1918, 5½ per cent, due 1923	152,300	–	Overdue.
" " due 1933	446,658,800	24,566,234	Nov. 1, 1933.
Victory Loan, 1919, 5½ per cent, due 1924	85,850	–	Overdue.
" " due 1934	511,910,650	28,155,085	Nov. 1, 1934.
Renewal Loan, 1922, 5½ per cent, due 1927	553,700	–	Overdue.
" " due 1932	73,325,150	4,032,883	Nov. 1, 1932.
Refunding Loan, 1923, 5 per cent, due 1928	46,746,000	2,337,300	Oct. 15, 1928.
" " due 1943	147,000,000	7,350,000	Oct. 15, 1943.
" 1924, 4½ per cent, due 1944	50,000,000	2,250,000	Oct. 15, 1944.
" 1926, 4½ per cent, due 1930	20,000,000	900,000	Feb. 1, 1930.
" " due 1946	45,000,000	2,025,000	Feb. 1, 1946.
Refunding Loan, 1925, 4½ per cent, due 1940	75,000,000	3,375,000	Sept. 1, 1940.
Three Year Treasury Notes, 4 per cent, due Dec. 1, 1930	45,000,000	1,800,000	Dec. 1, 1930.
Gross Total	**1,871,568,603**	**98,394,403**	
Less Sinking Funds	1,519,278		
Net Total	**1,870,049,325**	–	
TEMPORARY LOANS.			
Loan of 1917-19, New York, 5 per cent	1,000	–	Aug. 1, 1919.
Debenture Stock, 5 per cent	200,000	10,000	
Total	**201,000**	**10,000**	

In addition to the direct liabilities of the Government of Canada, there are certain indirect liabilities arising out of the guaranteeing of securities for the railways, both before and after their acquisition by the public. The outstanding securities guaranteed as to principal and interest amounted on Mar. 31, 1928, to $440,224,186 held by the public and $58,157,951 held by the Minister of Finance. The amount guaranteed as to interest only (Grand Trunk Railway acquisition guarantees) was at the same date $216,207,142.

The list of securities guaranteed by the Dominion Government was, at Mar. 31, 1928, as follows:—

Securities.	Amount Authorized.	Amount outstanding at March 31, 1928.	
		Held by the Public.	Held by the Minister of Finance.
	$	$	$
Railway Securities Guaranteed as to Principal and Interest—			
1. Canadian Northern Ry. Co., 3 p.c. deb. stock, due 1953, £1,923,287–0–0	9,359,997	9,359,997	–
2. Canadian Northern Ry. Co., 3½ p.c. deb. stock, due 1958, £1,622,586–19–9	7,896,590	7,896,571	–
3. Canadian Northern Ont. Ry. Co., 3½ p.c. deb. stock, due 1961, £7,350,000–0–0	35,770,000	34,229,997	1,540,003
4. Canadian Northern Alta., Ry. Co., 3½ p.c. deb. stock, due 1960, £647,260–5–6	3,150,000	3,149,999	–
5. Grand Trunk Pacific Ry. Co., 3 p.c. bonds due 1962, £14,000,000–0–0	68,040,000	34,992,000	33,048,000
6. Canadian Northern Alta. Ry. Co., 3½ p.c. deb. stock, due 1962, £733,561–12–10	3,570,000	–	3,569,996
7. Canadian Northern Ry. Co., 4 p.c. bonds, due 1934	45,000,000	17,060,333	12,500,000
8. Grand Trunk Pacific Ry. Co., 4 p.c. bonds, due 1962, £3,280,000–0–0	15,940,800	8,440,848	7,499,952
9. Canadian Northern Ry. Co., 7 p.c. bonds, due 1940	25,000,000	24,793,000	–
10. Grand Trunk Ry. Co., 7 p.c. bonds, due 1940	25,000,000	24,743,000	–
11. Canadian Northern Ry. Co., 6½ p.c. bonds, due 1946	25,000,000	25,000,000	–
12. Grand Trunk Ry. Co., 6 p.c. bonds, due 1936	25,000,000	25,000 000	–
13. Canadian National Ry. Co., 5 p.c. serial equipment bonds, 1923–38	22,500,000	15,750,000	–
14. Canadian National Ry. Co., 5 p.c. bonds, due 1954	50,000,000	50,000,000	–
15. Canadian National Ry. Co., 4½ p.c. bonds, due 1954	26,000,000	26,000,000	–
16. Canadian National Ry. Co., 4½ p.c. bonds, due 1930	18,000,000	18,000,000	–
17. Canadian Northern Ry. Co., 4½ p.c. bonds, due 1935	17,000,000	17,000,000	–
18. Canadian National Ry. Co., 1927, Guar. Deb. Stock, £7,176,801	34,927,098	33,808,441	–
19. Canadian National Ry. Co., 4½ p.c. Gold Bonds, due 1957	65,000,000	65,000,000	–
	522,154,485	440,224,186	58,157,951
Railway Securities Guaranteed as to Interest only—			
20. Grand Trunk Ry. Acquisition Guarantees—			
Grand Trunk 4 p.c. gtd. stock, £12,500,000	60,833,333	60,833,333	–
Grand Trunk 5 p.c. perp. deb. stock, £4,270,375	20,782,492	20,782,492	–
Great Western 5 p.c. perp. deb. stock, £2,723,080	13,252,323	13,252,323	–
Grand Trunk 4 p.c. perp. deb. stock, £24,624,455	119,839,014	119,839,014	–
Northern Ry. of Can., 4 p.c. perp. deb. stock, £308,215	1,499,980	1,499,980	–
	216,207,142	216,207,142	–
Other Securities Guaranteed as to Principal and Interest—			
21. The Harbour Commissioners of Montreal—Montreal South Shore Bridge, 4½ per cent Bond, payable on demand	4,000,000	4,000,000	–
22. The Harbour Commissioners of Montreal—Montreal South Shore Bridge 4½ per cent Bond, payable on demand	4,000,000	4,000,000	–
23. Canadian National (West Indies) Steamships, Limited, 4½ per cent Temporary Bond, payable on demand not later than Dec. 31, 1929	10,000,000	828,789	–
24. Saint John Harbour Commission—Bonded indebtedness of the City of Saint John assumed by the Commission	1,467,165	1,467,165	–
Debentures of the Commission to be issued to the City of Saint John	667,953	–	–
	20,135,118	10,295,954	–

23.—Public Debt of Canada, July 1, 1867, to Mar. 31, 1928.

Fiscal Yrs.	Total debt.	Total assets.	Net debt.	Net debt per capita.	Increase or decrease of debt during the year.[1]	Interest paid on debt.	Interest received from active assets.	Interest paid per capita
	$	$	$	$	$	$	$	$
1867.	93,046,052	17,317,410	75,728,642	22·73	–	–	–	
1868.	96,896,666	21,139,531	75,757,135	22·47	28,493	4,501,568	126,420	
1869.	112,361,998	36,502,679	75,859,319	22·23	102,184	4,907,014	313,021	
1870.	115,993,706	37,783,964	78,209,742	22·64	2,350,423	5,047,054	383,956	
1871.	115,492,683	37,786,165	77,706,518	22·09	−503,225	5,165,304	554,384	
1872.	122,400,179	40,213,107	82,187,072	22·76	4,480,554	5,257,231	488,042	
1873.	129,743,432	29,894,970	99,848,462	27·22	17,661,390	5,209,206	396,404	
1874.	141,163,551	32,838,587	108,324,964	28·32	8,476,502	5,724,436	610,863	
1875.	151,663,402	35,655,024	116,008,378	29·84	7,683,414	6,590,790	840,887	
1876.	161,204,688	36,653,174	124,551,514	31·54	8,543,136	6,400,902	798,906	
1877.	174,675,835	41,440,526	133,235,309	33·20	8,683,795	6,797,227	717,684	
1878.	174,957,269	34,595,199	140,362,070	34·41	7,126,761	7,048,884	605,774	
1879.	179,483,871	36,493,684	142,990,187	34·49	2,628,117	7,194,734	592,500	
1880	194,634,441	42,182,852	152,451,589	36·17	9,461,402	7,773,869	834,793	
1881.	199,861,537	44,465,757	155,395,780	35·82	2,944,191	7,594,145	751,513	
1882.	205,365,252	51,703,601	153,661,651	35·05	−1,734,129	7,740,804	914,009	
1883.	202,159,104	43,692,390	158,466,714	35·75	4,805,063	7,668,552	1,001,193	
1884.	242,482,416	60,320,586	182,161,850	40·61	23,695,136	7,700,181	986,698	
1885.	264,703,607	68,295,915	196,407,692	43·27	14,245,842	9,419,482	1,997,936	
1886.	273,164,341	50,005,234	223,159,107	48·63	26,751,415[2]	10,137,009	2,299,079	
1887.	273,187,626	45,872,851	227,314,775	49·01	4,155,668	9,682,929	990,887	
1888.	284,513,842	49,982,484	234,531,358	50·03	7,216,583	9,823,313	932,025	
1889.	287,722,063	50,192,021	237,530,042	50·11	2,998,684	10,148,932	1,305,392	
1890.	286,112,295	48,579,083	237,533,212	49·56	3,170	9,656,841	1,082,271	
1891.	289,899,230	52,090,199	237,809,031	49·09	275,819	9,584,137	1,077,228	
1892.	295,333,274	54,201,840	241,131,434	49·32	3,322,403	9,763,978	1,086,420	
1893.	300,054,525	58,373,485	241,681,040	48·95	549,606	9,806,888	1,150,167	
1894.	308,348,023	62,164,994	246,183,029	50·30	4,501,989	10,212,596	1,217,809	
1895.	318,048,755	64,973,828	253,074,927	50·27	6,891,898	10,466,294	1,336,047	
1896.	325,717,537	67,220,104	258,497,433	50·82	5,422,506	10,502,430	1,370,001	
1897.	332,530,131	70,991,535	261,538,596	50·86	3,041,163	10,645,663	1,443,004	
1898.	338,375,984	74,419,585	263,956,399	50·77	2,417,803	10,516,758	1,513,455	
1899.	345,160,903	78,887,456	266,273,447	50·63	2,317,048	10,855,112	1,590,448	
1900.	346,206,930	80,713,173	265,493,807	49·89	−779,640	10,699,645	1,683,051	
1901.	354,732,433	86,252,429	268,480,004	49·69	2,986,197	10,807,955	1,784,834	
1902.	366,358,477	94,529,387	271,829,090	49·13	3,349,086	10,975,935	1,892,224	
1903.	361,344,098	99,737,109	261,606,989	46·11	−10,222,101[3]	11,068,139	2,020,953	
1904.	364,962,512	104,094,793	260,867,719	44·78	− 739,270[4]	11,128,637	2,236,256	
1905.	377,678,580	111,454,413	266,224,167	44·43	5,356,448	10,630,115	2,105,031	
1906.	392,269,680	125,226,703	267,042,977	43·27	818,810	10,814,697	2,140,312	
1907[6]	379,966,826	116,294,936	263,671,860	41·84	−3,371,117	6,712,771	1,235,746	
1908.	408,207,158	130,246,298	277,960,860	42·82	14,289,000	10,973,597	1,925,569	
1909.	478,535,427	154,605,148	323,930,279	48·38	45,969,419	11,604,584	2,256,643	
1910.	470,663,046	134,394,500	336,268,546	48·61	12,338,267	13,098,161	2,807,465	
1911.	474,941,487	134,899,435	340,042,052	47·18	3,773,506	12,535,851	1,668,773	
1912.	508,338,592	168,419,131	339,919,461	46·15	−122,591	12,259,397	1,281,317	
1913.	483,232,555	168,930,930	314,301,625	41·76	−25,617,836	12,605,882	1,430,511	
1914.	544,391,369	208,394,519	335,996,850	43·68	21,695,225	12,893,505	1,964,541	
1915.	700,473,814	251,097,731	449,376,083	57·16	113,379,233	15,736,743	2,980,247	
1916.	936,987,802	321,831,631	615,156,171	76·55	165,780,088	21,421,585	3,358,210	
1917.	1,382,003,268	502,816,970	879,186,298	107·48	264,030,127	35,802,567	3,094,012	
1918.	1,863,335,899	671,451,836	1,191,884,063	143·11	312,697,765	47,845,585	4,466,724	
1919.	2,676,635,725	1,102,104,692	1,574,531,033	185·60	382,646,970	77,431,432	7,421,002	
1920.	3,041,529,587	792,660,963[5]	2,248,868,624	260·54	674,337,591	107,527,089	17,086,981	
1921.	2,902,482,117	561,603,135[5]	2,340,878,984	266·36	92,010,360	139,551,520	24,815,246	
1922.	2,902,347,137	480,211,335[5]	2,422,135,802	271·89	81,256,817	135,247,849	21,961,513	
1923.	2,888,827,237	435,050,368[5]	2,453,776,869	271·79	31,641,067	137,892,735	16,465,303	
1924.	2,819,610,470	401,827,195[5]	2,417,783,275	264·21	−35,993,594	136,237,872	11,916,479	
1925.	2,818,066,523	400,628,837[5]	2,417,437,686	260·82	−345,589	134,789,604	11,332,328	
1926.	2,768,779,184	379,048,085[5]	2,389,731,099	254·51	−27,706,587	130,691,493	8,535,086	
1927.	2,726,298,717	378,464,347[5]	2,347,834,370	246·64	−41,896,729	129,675,367	8,559,401	
1928.	2,677,137,243	380,287,010[5]	2,296,850,233	237·82	−50,984,137	128,902,945	10,937,822	

[1]The minus sign (−) denotes a decrease.
[2]This amount includes $10,199,520, for which land was taken from the Canadian Pacific Ry. Co.
[3]This amount included $3,305,450, caused by the settlement of accounts with Ontario and Quebec.
[4]This amount takes into account $5,397,503, allowed to Ontario and Quebec under 47 Vict., c. 6.
[5]Active assets only. [6]9 months.

Section 2.—Provincial Public Finance.

Provincial Governments in Canada are in the position, under section 118 of the British North America Act, 1867 (30 and 31 Vict., c. 3), and the British North America Act, 1907 (7 Edw. VII, c. 11), of having a considerable assured income in subsidies from the Dominion Treasury. Details of these payments are given for recent years in Tables **17** and **18** of this chapter. In addition, through their retention of ownership of their lands, minerals and other natural resources, the provinces which by the voluntary action of their previously existing governments entered Confederation, raise considerable revenues through land sales, sales of timber, mining royalties, leases of water powers, etc., while the Prairie Provinces receive from the Dominion special grants in lieu of land revenues. Further, under section 92 of the British North America Act, Provincial Legislatures are given authority to impose direct taxation within the province for provincial purposes and to borrow money on the sole credit of the province.

While the *laisser faire* school of political thought was predominant throughout the country, provincial receipts and expenditures were generally very moderate, as may be seen both for individual provinces and for the provinces collectively from Table **24.** From the commencement of the twentieth century, however, the Canadian public, more especially in Ontario and the West, began to demand increased services from the government, particularly in respect of education, sanitation, and public ownership and operation of public utilities. The performance of these functions necessitated increased revenues, which had in the main to be raised by taxation. Among the chief methods of taxation to be employed has been the taxation of corporations and estates, succession duties showing a considerably increased yield even within the comparatively short period of eleven years from 1916 to 1927 covered by the statements compiled by the Finance Branch of the Bureau of Statistics.[1] The fact that provincial government is cheaper per head in the *laisser faire* eastern provinces is evident from Table **25**, which gives the per capita ordinary revenue and expenditure for various fiscal years from 1881 to 1926. This, however, is not to be taken as evidence that the larger services rendered to the public in the western provinces are not worth what is being paid for them.

For the half-century subsequent to Confederation, the provincial accounts, published by each government according to its own system of accounting, were quite incomparable as among the provinces, a fact much regretted by students of provincial public finance. Upon the creation of the Dominion Bureau of Statistics in 1918, its Finance Branch undertook the work of placing the various provincial public accounts on a comparable basis, correlating, for example, the revenues

[1] The succession duties collected by the provinces in 1927 amounted in the aggregate to $16,282,856, as compared with $1,020,972 as recently as 1901, or a 16-fold increase in 23 years. The aggregate revenue raised by taxation of corporations, etc., increased from $7,217,548 in 1916 to $30,956,134 in 1926—a four-fold increase in 10 years. For the details for the years 1916 to 1920, see pp. 680 and 684 of the 1921 Year Book.

derived from succession duties, taxation of corporations, sales of public lands, royalties on forest, mineral and fisheries products, as well as the expenditures on such services as agriculture, civil government, education and public works. As the result of the Bureau's exhaustive analysis of the provincial public accounts, a summary statement of the ordinary receipts and expenditures of the Provincial Governments appeared for the first time in the 1919 Year Book. In the 1927-28 edition an analysis was given of the provincial public accounts for the five fiscal years ended from 1922 to 1926. In it the various items of receipts and expenditures were classified under appropriate headings, and a uniform terminology was adopted. The result was given at pp. 836-841 of the 1927-28 Year Book, which presented summary statements of the ordinary receipts and expenditures of each Provincial Government for each of the five provincial fiscal years from 1922 to 1926. From these statements it is possible to ascertain the amounts received and expended in each year under the respective headings for each province, as well as for the provinces collectively. Similar figures for the years from 1916 to 1920 will be found on pp. 680-685 of the 1921 Year Book and for 1921 on pp. 786-791 of the 1922-23 Year Book.

In 1927 it was decided to commence a more exhaustive analysis of the finances of the Provinces, including extraordinary as well as ordinary revenue and expenditure in the survey. The difficulties experienced in making this analysis have been considerable, and the results were not available at the time of going to press.

Ordinary Revenue and Expenditure.—The total ordinary revenue of the nine provinces for their latest fiscal years for which final data are available, ended 1927, was $156,845,780, as compared with $146,450,904 in 1926, $132,398,729 in 1925, $127,896,047 in 1924, $117,738,244 in 1923, $116,156,699 in 1922, $102,030,457 in 1921, $92,653,023 in 1920 and $50,015,795 in 1916. The total ordinary expenditure in 1927 was $152,211,883 as compared with $144,183,178 in 1926, $136,648,241 in 1925, $135,159,185 in 1924, $132,671,095 in 1923, $112,874,954 in 1922, $102,569,515 in 1921, $88,250,675 in 1920 and $53,826,219 in 1916. Thus the total ordinary revenue of the provinces shows an increase of 213 p.c. in the short space of 11 years, while the total ordinary expenditure shows an increase of 183 p.c. in the same period.

Considering the individual provinces, the largest revenue for 1927 is that of Ontario, $56,306,225, Quebec being next with $30,924,997, and British Columbia third with $20,257,916. As regards total expenditure for the same year, that of Ontario was highest, $55,763,689, Quebec second with $29,078,703, and British Columbia third with $19,408,881. In 1927, British Columbia raised the largest revenue per head of population, *viz.*, $35.23, while Prince Edward Island had the lowest, $9.65.[1]

[1]Reports giving details of the finances of Provincial Governments for 1923, 1924, 1925 and 1926, have been published. Copies may be obtained on application to the Dominion Bureau of Statistics, Ottawa.

The Growth of Provincial Taxation.—Whereas in earlier years the Dominion subsidies, together with the revenues arising out of the natural resources of the provinces and from fees for specific services rendered to the citizens, nearly sufficed to cover the whole expense of government and rendered a resort to taxation for provincial purposes practically unnecessary in most of the provinces, the great increase in the functions of government since the commencement of the present century has put an end to this state of affairs. The aggregate amount of taxation for provincial purposes in the fiscal years prior to 1916 is unfortunately not available, but since that time provincial taxation has increased, according to the analyses made in the Dominion Bureau of Statistics, from $15,718,146 in 1916 to $76,683,166 in 1926—a five-fold increase in 10 years.

Bonded Indebtedness of the Provinces.—The bonded indebtedness of the provinces amounts to about four-fifths of their total direct liabilities. In recent years, the aggregate bonded indebtedness of the provinces has steadily increased. The total for the nine provinces was $644,195,268 in 1923, $705,230,487 in 1924, $708,900,342 in 1925, $715,489,427 in 1926 and $757,168,785 in 1927. This bonded indebtedness was divided by provinces as follows:—P.E.I., $1,933,000; N.S., $41,708,457; N.B., $36,554,409; Que., $79,272,226; Ont., $307,146,095; Man., $67,293,828; Sask., $56,944,576; Alta., $90,890,458; B.C., $75,485,736. The development of the principle of public ownership is largely responsible for the high bonded indebtedness in certain provinces, particularly in Ontario, where the hydro-electric system and the provincially-owned Temiskaming and Northern Ontario railway largely account for the bonded indebtedness of the province. These particular public utilities are, however, meeting from their revenues the interest on the indebtedness incurred in their construction.

Interest Payments of the Provinces.—The interest payments of the provincial governments have naturally increased in proportion with their growing indebtedness described above. In 1916, the first year for which aggregate figures are available on a comparable basis, the total interest payments of the provinces were $6,196,933; in 1921 they had risen to $19,818,266; in 1926 they were $37,366,925 and in 1927 $39,899,948. The 1927 interest payments of the provincial governments were as follows:—P.E.I., $70,020; N.S., $1,849,637; N.B., $1,072,766; Que., $3,839,506; Ont., $19,344,779; Man., $3,859,648; Sask., $2,160,379; Alta., $4,018,611; B.C., $3,684,601.

Fiscal Years of the Provinces.—In 1927 the fiscal years of the provinces ended as follows:—P.E.I., Dec. 31; N.S., Sept. 30; N.B., Oct. 31; Quebec, June 30; Ontario, Oct. 31; Manitoba and Saskatchewan, April 30; Alberta, Dec. 31; British Columbia, Mar. 31.

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24.—Statement showing the Ordinary Revenues and Expenditures of the Provincial Governments for their respective fiscal years ended 1869-1927.

Fiscal Years.	Prince Edward Island.		Nova Scotia		New Brunswick		Quebec.	
	Receipts.	Expenditure.[2]	Receipts.	Expenditure.	Receipts.	Expenditure.	Receipts.	Expenditure.
	$	$	$	$	$	$	$	$
1869-72 (total 4 yr.)	1,372,064	1,569,447	2,360,891	2,295,304	1,939,397	1,978,949	6,638,866	6,072,2
1873	484,979[1]	401,662[1]	600,196	608,919	508,550	540,486	1,795,749	1,707,3
1874	403,013	442,767	686,826	676,111	591,465	589,794	1,983,603	1,908,2
1875	306,597	395,277	616,350	714,803	608,099	679,814	2,036,869	2,060,7
1876	524,144	353,226	589,637	653,874	634,850	587,330	2,329,868	2,283,0
1877	326,274	331,632	562,800	588,942	618,113	650,233	2,397,383	2,471,5
1878	312,684	334,133	645,294	688,003	584,977	640,815	2,018,482	2,577,1
1879	288,062	313,845	394,205	503,051	526,685	616,132	2,201,215	2,715,3
1880	269,603	257,309	541,318	506,253	675,285	609,671	2,342,412	2,830,3
1881	275,380	261,276	476,445	494,582	607,445	598,844	3,191,779	3,566,6
1882	233,465	257,228	537,667	569,119	643,710	614,236	3,419,371	3,628,2
1883	228,169	270,477	563,864	541,099	822,889[3]	943,824[3]	2,755,707	3,096,9
1884	280,271	279,545	586,561	572,768	650,466[4]	633,658	2,823,565	3,124,6
1885	248,222	266,318	613,026	620,700	617,570	584,473	2,926,148	2,936,7
1886	233,978	304,467	633,145	656,348	634,574	623,593	2,949,562	3,032,6
1887	241,736	288,052	656,639	664,103	665,819	667,647	2,965,567	3,288,7
1888	254,209	279,939	712,951	668,400	664,880	640,806	2,738,768	3,365,0
1889	234,635	263,605	668,774	713,941	651,031	637,051	3,628,544	3,543,6
1890	224,882	305,799	664,938	710,497	646,079	651,735	3,537,407	3,894,4
1891	274,047	304,486	661,541	692,538	612,762	680,813	3,457,144	4,095,5
1892	245,652	259,012	769,976	822,462	652,669	676,483	3,458,404	4,446,6
1893	217,473	294,201	682,567[5]	642,385[5]	730,877	711,673	4,373,363	3,907,4
1894	282,468	280,596	888,213	862,842	619,298[6]	661,521[6]	4,258,728	4,267,9
1895	277,314	310,177	835,455	831,230	687,437	684,635	4,221,687	4,189,9
1896	273,496	287,631	841,160	853,893	698,437	701,452	4,327,910	4,099,7
1897	272,550	310,752	832,240	853,699	745,203	727,187	3,877,466	4,892,2
1898	276,183	301,700	855,950	849,330	708,809	727,050	4,176,140	4,415,3
1899	282,678	276,789	876,828	852,379	764,439	749,644	4,223,579	4,201,0
1900	282,056	308,494	1,014,123	937,261	758,989	794,477	4,451,578	4,433,3
1901	309,445	315,326	1,090,230	1,088,927	1,031,267	910,346	4,563,432	4,516,5
1902	324,670	324,185	1,140,217	1,087,403	826,066	845,637	4,515,170	4,490,6
1903	318,766	327,662	1,243,581	1,177,331	801,410	816,295	4,699,773	4,596,0
1904	307,730	356,120	1,194,756	1,161,456	890,653	885,457	4,880,687	4,795,4
1905	313,445	334,734	1,324,531	1,303,708	865,637	874,420	5,039,001	4,989,9
1906	258,235[7]	264,135[7]	1,391,629	1,375,588	887,202	879,066	5,340,167	5,179,8
1907	350,479	346,081	1,438,167	1,539,169	969,939	960,093	5,370,595	4,767,0
1908	366,601	377,603	1,783,467	1,624,760	1,086,738	1,042,196	6,016,616	4,980,9
1909	375,374	366,938	1,632,979	1,653,508	1,259,827	1,255,382	6,082,187	5,539,8
1910	375,151	382,891	1,592,363	1,725,914	1,324,440	1,317,876	6,571,944	4,627,7
1911	374,798	398,490	1,625,653	1,790,778	1,347,077	1,403,547	7,032,745	6,424,9
1912	485,565[8]	527,220[8]	1,870,056	1,832,075	1,417,722	1,409,049	8,070,109	7,386,6
1913	506,553	450,112	1,920,565	1,949,784	1,459,000	1,446,963	8,382,737	7,953,9
1914	525,555	445,396	1,885,458	2,098,893	1,505,229	1,493,774	9,000,377	8,624,3
1915	470,730	510,345	1,953,302	2,073,672	1,634,079	1,626,634	9,597,926	8,710,5
1916	508,455	453,151	2,165,338	2,152,773	1,580,419	1,568,340	9,647,984	9,436,6
1917	496,053	487,113	2,118,620	2,344,009	1,572,814	2,166,904	10,441,114	9,907,9
1918	514,475	484,416	2,332,634	2,573,797	2,357,909	2,399,062	13,806,392	11,671,9
1919	501,915	655,409	3,280,313	3,280,282	2,182,420	2,595,937	12,666,352	12,371,1
1920	740,973	660,774	3,801,016	3,916,848	3,100,892	2,969,323	14,447,651	13,520,7
1921	769,719	694,042	4,586,840	4,678,146	2,892,905	3,432,512	15,914,521	14,624,0
1922	748,888	687,241	4,791,208	4,791,998	3,226,727	2,985,877	21,609,396	16,575,9
1923	654,303	790,046	5,317,335	5,229,178	3,479,733	3,648,273	21,634,642	19,930,2
1924	738,431	715 882	5,461,383	5 579,525	3,725,286	3,835,522	23,170,733	21,567,2
1925	740,076	745,338	4,467,484	5,909,544	3,556,330	4,112,569	25,021,329	23,629,8
1926	832,551	756,114	5,744,575	6,327,043	4,206,853	4,078,775	27,206,335	26,401,4
1927	836,748	870,427	6,517,073	6,566,143	5,093,446	4,636,157	30,924,997	29,078,7

[1]11 months only. [2]Includes expenditure on capital account, except for 1900-1904. [3]14 months. [4]Contains $250,000, proceeds of bonds for funding floating debt. [5]For 9 months ended September 30. [6]10 months. [7]Nine months only, owing to change of fiscal year. [8]Fifteen months, owing to change of fiscal year.

24.—Statement showing the Ordinary Revenues and Expenditures of the Provincial Governments for their respective fiscal years ended 1869-1927—continued.

Fiscal Years.	Ontario.		Manitoba.		Saskatchewan.	
	Receipts.	Expenditure.	Receipts.	Expenditure.	Receipts.	Expenditure.
	$	$	$	$	$	$
1869-72 (total 4 yrs.)	11,532,880	8,277,724	–	–	–	–
1873	3,141,298	3,099,634	–	138,658	–	–
1874	3,446,348	3,883,702	24,611[5]	61,177[5]	–	–
1875	3,156,606	3,617,522	74,534	133,390	–	–
1876	2,589,085	3,152,365	150,010[6]	145,248[6]	–	–
1877	2,502,449	3,131,998	99,608	92,958	–	–
1878	2,284,656	2,914,864	98,864	107,926	–	–
1879	2,287,951	2,954,712	135,311	151,086	–	–
1880	2,584,152	2,531,166	118,867	185,109	–	–
1881	2,788,747	2,592,800	121,867	226,808	–	–
1882	2,880,450	2,931,825	255,208	232,189	–	–
1883	2,439,941	2,900,035	376,863	386,071	–	–
1884	2,820,555	3,207,890	302,962	501,710	–	–
1885	3,005,921	3,040,139	150,728[5]	229,278[5]	–	–
1886	3,148,660	2,181,450	485,326	484,002	–	–
1887	3,527,578	3,454,372	506,890	520,190	–	–
1888	3,602,862	3,544,835	841,894[6]	758,139[6]	–	–
1889	4,464,031	4,578,982	583,795	588,467	–	–
1890	3,434,259	3,907,428	585,709	708,302	–	–
1891	4,138,589	4,158,460	590,484	664,432	–	–
1892	4,662,922	4,068,257	605,288	832,890	–	–
1893	4,091,914	3,907,145	633,116	798,188	–	–
1894	3,453,163	3,839,339	613,094	699,319	–	–
1895	3,585,300	3,758,595	703,172	704,946	–	–
1896	3,490,671	3,703,380	665,353	763,158	–	–
1897	4,139,848	3,767,676	683,706	780,109	–	–
1898	3,710,928	3,864,971	936,604	837,888	–	–
1899	4,103,478	3,717,404	776,234	972,462	–	–
1900	4,192,940	4,003,729	905,331	1,085,405	–	–
1901	4,466,044	4,038,834	1,008,653	988,251	–	–
1902	4,291,083	4,345,004	1,443,256	1,248,128	–	–
1903	5,466,653	4,888,983	1,352,218	1,262,292	–	–
1904	6,128,358	5,267,453	1,486,667	1,271,733	–	–
1905	6,016,176	5,396,017	1,860,900	1,398,431	618,432[1]	118,602[1]
1906	7,149,478	6,720,179	2,089,652	1,572,691	1,441,258[2]	1,364,352[2]
1907	8,320,419	7,714,246	2,118,784	1,824,381	–	–
1908	8,602,903	8,557,065	2,891,582	2,534,794	1,844,371	2,091,613
1909	7,477,921	7,545,040	3,376,893	2,752,774	2,199,984	2,654,690
1910	8,891,005	8,887,520	3,847,322	3,234,941	2,514,698	2,220,866
1911	9,370,834	9,916,934	4,454,190	4,002,826	2,699,603	2,575,145
1912	10,042,001	10,287,992	7,046,675	4,339,540	4,385,831	4,255,850
1913	11,183,302	10,868,026	5,788,070	5,314,849	4,668,754	4,656,800
1914	11,121,382	11,819,311	5,512,163	5,638,659	6,372,540[4]	5,823,980[4]
1915	12,975,732	12,704,362	5,472,955	6,026,596	5,024,936	5,368,649
1916	13,841,339	12,706,333	5,897,807	6,147,780	4,801,064	5,258,756
1917	18,269,597	16,518,223	6,292,986	6,860,355	5,631,910	5,553,965
1918	19,270,122	17,460,404	6,723,013	7,307,727	7,797,153	6,828,596
1919	20,692,166[3]	21,464,575	8,613,364	8,497,942	8,333,759	8,125,203
1920	25,981,517[3]	25,880,843	9,870,710	10,602,955	9,903,885	8,707,833
1921	30,411,396[3]	28,579,688	9,358,956	10,063,139	11,789,920	12,151,665
1922	39,725,370[3]	37,458,395[7]	7,940,457	8,381,667	11,801,894	13,322,120
1923	34,818,729[3]	49,305,439	10,078,730	10,616,567	12,576,763	12,886,544
1924	41,721,961[3]	48,866,569	10,926,634	10,455,187	12,520,411	12,449,150
1925	48,013,852[3]	51,462,178	7,866,519[3]	6,824,155[3]	12,378,755	12,498,933
1926	52,039,855[3]	51,251,781	10,582,537	10,431,652	13,317,398	13,212,483
1927	56,306,225[3]	55,763,689	11,592,758	10,446,285	13,050,217	12,962,217

[1]Four months only. Province created Sept. 1, 1905. [2]Fourteen months ended Feb. 28, 1907. [3]Includes capital revenue for lands which cannot be separated. [4]Fourteen months ended April 30. [5]Six months. [6]Eighteen months. [7]Includes capital expenditure which cannot be separated. [8]For 8 months.

24.—Statement showing the Ordinary Revenues and Expenditures of the Provincial Governments for their respective fiscal years ended 1869-1927—concluded.

Fiscal Years.	Alberta.		British Columbia.		Total for all Provinces.[7]	
	Receipts.	Expenditure.	Receipts.	Expenditure.	Receipts.	Expenditure.
	$	$	$	$	$	$
1869-72 (total 4 yrs.)			519,036[5]	529,775[5]	24,363,134	20,723,488
1873	–	–	370,150	372,169	6,960,922	6,868,884
1874	–	–	372,418	583,360	7,508,284	8,145,194
1875	–	–	351,241	614,659	7,150,296	8,216,244
1876	–	–	381,120	728,310	7,198,714	7,903,378
1877	–	–	408,348	685,046	6,914,975	7,952,362
1878	–	–	430,786	514,879	6,375,743	7,777,791
1879	–	–	213,058[6]	186,715[6]	6,046,487	7,441,090
1880	–	–	390,908	446,575	6,922,545	7,366,160
1881	–	–	397,035	378,779	7,858,698	8,119,701
1882	–	–	405,583	474,428	8,375,454	8,707,254
1883	–	–	425,808	594,102	7,613,241	8,732,551
1884	–	–	503,174	590,629	7,967,554	8,910,820
1885	–	–	600,399	655,438	8,162,014	8,333,089
1886	–	–	514,720	772,211	8,599,965	8,054,678
1887	–	–	537,335	731,307	9,101,564	9,614,469
1888	–	–	598,252	788,955	9,413,816	10,046,105
1889	–	–	698,055	857,545	10,928,865	11,183,210
1890	–	–	835,463	954,021	9,928,737	11,132,195
1891	–	–	959,248	1,032,104	10,693,815	11,628,353
1892	–	–	1,020,002	1,430,920	11,414,913	12,536,664
1893	–	–	1,019,206	1,431,438	11,748,516	11,692,475
1894	–	–	821,660	1,514,405	10,936,624	12,125,968
1895	–	–	896,025	1,906,924	11,206,390	12,386,492
1896	–	–	989,765	1,614,723	11,286,792	12,023,944
1897	–	–	1,383,048	1,569,071	11,934,061	12,900,776
1898	–	–	1,439,623	2,001,032	12,104,247	12,997,341
1899	–	–	1,531,639	2,156,474	12,558,875	12,926,175
1900	–	–	1,544,108	1,831,205	13,149,125	13,393,957
1901	–	–	1,605,920	2,287,821	14,074,991	14,146,059
1902	–	–	1,807,925	2,537,373	14,348,387	14,878,407
1903	–	–	2,044,630	3,393,182	15,927,031	16,461,806
1904	–	–	2,638,260	2,862,794	17,527,111	16,600,482
1905	635,976[1,2]	162,723[1,2]	2,920,462	2,302,418	19,594,560	16,880,959
1906	1,425,059[2]	1,485,914[2]	3,044,442	2,428,126	23,027,122	21,169,868
1907	2,081,828[2]	2,450,375[2]	4,444,594	2,849,480	24,994,805	22,450,895
1908	2,849,650[2]	2,823,831[2]	5,979,055	3,686,350	31,420,983	27,719,131
1909	3,135,727[2]	2,650,441	4,664,501[3]	3,749,171[3]	30,205,393	28,167,824
1910	2,488,406[2]	4,002,394	8,874,742	6,382,993	36,480,071	33,783,150
1911	3,309,156[2]	3,437,088	10,492,892	8,194,803	40,706,948	38,144,511
1912	4,100,113[2]	3,956,562	10,745,709	11,189,024	48,163,781	45,183,992
1913	5,399,905	5,225,584	12,510,215	15,412,322	51,819,101	53,278,425
1914	5,255,276	5,401,595	10,479,259	15,762,912	51,657,239	57,108,888
1915	5,143,590	5,714,032	7,974,496	11,942,667	50,247,746	54,677,473
1916	5,281,695	6,018,894	6,291,694	10,083,505	50,015,795	53,826,219
1917	6,260,106	6,752,504	6,906,784	9,531,740	57,989,984	60,122,485
1918	7,660,762	8,303,808	8,882,845	9,023,269	69,345,305	66,052,909
1919	9,642,739	9,525,749	10,931,279	9,887,745	76,844,307	76,403,973
1920	10,919,776	10,423,356	13,861,603	11,568,003	92,653,023	88,250,675
1921	11,086,937	13,109,304	15,219,264	15,236,931	102,030,458	102,569,515
1922	9,324,890	11,235,192	16,987,869	17,436,487	116,156,699	112,874,954
1923	10,419,146	10,990,830	18,758,864	19,273,942[4]	117,738,244	132,671,095
1924	10,506,627	11,174,690	19,124,580	20,515,367[4]	127,896,047	135,159,185
1925	11,531,026	11,249,433	18,823,358	20,156,702[4]	132,398,729	136,648,242
1926	11,912,128	11,894,328	20,608,672	19,829,522[4]	146,450,904	144,183,178
1927	12,263,401	12,479,381	20,257,916	19,408,881[4]	156,845,780	152,211,883

[1]Four months only. Province created Sept. 1, 1905. [2]Includes small sums of capital revenue and expenditure which cannot be separated. [3]Nine months only, owing to change in fiscal year. [4]Includes sinking funds taken from capital expenditure (expenditure out of income). [5]Six months of 1871 and for the year 1872. [6]Six months. [7]See foot notes to figures for individual provinces when using these columns.

25.—Ordinary Receipts and Expenditures of Provincial Governments per head of Population for their respective fiscal years ended in the census years 1881-1911, and in each year from 1916 to 1927.

NOTE.—As this table is based upon Table 24, those using it should refer to that table for totals and for explanatory notes.

(A) ORDINARY RECEIPTS.

Fiscal Years.	Prince Edward Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Average for all Provinces.
	$	$	$	$	$	$	$	$	$	$
1881	2·53	1·08	1·90	2·35	1·45	1·96	–	–	8·03	1·82
1891	2·50	1·47	1·91	2·32	1·96	3·88	–	–	9·77	2·21
1901	3·00	2·37	3·12	2·77	2·05	3·95	–	–	8·99	2·62
1911	4·00	3·30	3·83	3·50	3·71	9·65	5·48	8·84	26·73	5·65
1916	5·59	4·27	4·28	4·43	5·08	10·65	7·41	10·64	13·76	6·23
1917	5·49	4·16	4·22	4·72	6·61	11·14	8·42	12·17	14·68	7·10
1918	5·72	4·55	6·27	6·14	6·87	11·68	11·28	14·38	18·36	8·34
1919	5·61	6·35	5·74	5·54	7·27	14·67	11·69	17·50	21·99	9·08
1920	8·32	7·31	8·08	6·23	8·99	16·49	13·47	19·17	27·14	10·75
1921	8·69	8·76	7·46	6·74	10·37	15·34	15·56	18·84	29·01	11·63
1922	9·47	9·09	8·24	9·01	13·35	12·66	15·17	15·41	31·76	12·96
1923	7·43	10·03	8·80	8·87	11·53	15·81	15·78	16·78	34·48	12·98
1924	8·42	10·23	9·33	9·34	13·63	16·89	15·36	16·49	34·58	13·88
1925	8·48	8·32	8·82	9·93	15·47	11·98	14·86	17·69	33·58	14·16
1926	9·57	10·64	10·33	10·62	16·54	16·56	16·23	19·61	36·26	15·62
1927	9·65	12·00	12·40	11·88	17·67	17·92	15·61	19·88	35·23	16·50

(B) ORDINARY EXPENDITURE.

1881	2·40	1·12	1·87	2·63	1·35	3·64	–	–	7·66	1·88
1891	2·77	1·54	2·12	2·75	1·97	4·36	–	–	10·51	2·41
1901	3·05	2·37	2·75	2·74	1·85	3·87	–	–	12·80	2·63
1911	4·25	3·64	3·99	3·20	3·92	8·68	5·23	9·18	20·87	5·29
1916	4·98	4·25	4·25	4·33	4·67	11·10	8·12	12·12	22·05	6·71
1917	5·39	4·60	5·82	4·48	5·97	12·15	8·30	13·12	20·26	7·36
1918	5·39	5·02	6·38	5·19	6·23	12·69	9·88	15·59	18·65	7·94
1919	7·33	6·35	6·83	5·41	7·54	14·48	11·39	17·28	19·89	9·03
1920	7·42	7·53	7·73	5·82	8·96	17·72	11·85	18·30	22·65	10·24
1921	7·83	8·93	8·85	6·19	9·74	16·49	16·04	22·28	29·05	11·69
1922	7·77	9·08	7·62	6·91	12·59	13·37	17·12	18·57	32·58	12·60
1923	8·98	9·87	9·22	8·17	16·33	16·65	16·17	17·70	35·43	14·63
1924	8·16	10·46	9·60	8·69	15·96	16·16	15·27	17·54	37·10	14·67
1925	8·54	11·12	10·20	9·38	16·58	10·40	15·00	17·26	35·96	14·61
1926	8·69	11·72	10·02	10·31	16·29	16·32	16·10	19·58	34·89	15·38
1927	10·04	12·09	11·28	11·17	17·50	16·15	15·51	20·23	33·75	16·01

Section 3.—Municipal Public Finance.

The existence of local self-governing units has always been characteristic of democratic societies, and nowhere more so than in Canada. The struggle for responsible government was naturally accompanied by an agitation for local self-government in the cities and towns of Canada, and after responsible government had been conceded, a complete system of municipalities was established throughout the old province of Canada by the Municipal Act of 1849.[1] Under the division of powers made by the British North America Act between the Dominion and the Provincial Governments, legislation regarding municipal government, being a local matter, was naturally assigned to the provinces, which differ considerably with regard to their types of municipal organization. Thus in Prince Edward Island the only incorporated municipalities are the city of Charlottetown and six incorporated towns. In Nova Scotia there are no rural municipalities smaller than

[1]For a brief outline of the rise of the municipal system of Ontario, see 1922-23 Year Book, p. 108.

counties. In British Columbia, seven of the 33 cities have fewer than 1,000 people, while there are no towns at all and only six villages; again, in the same province the rural districts are mainly administered from the provincial capital, there being only 30 rural municipalities. Finally, in Saskatchewan and Alberta there exist local improvement districts, areas which have not as yet been organized into rural municipalities, where the taxes are levied, collected and expended by the Provincial Government. Such districts, however, may be regarded as on the way to become self-governing rural municipalities and their statistics are therefore included in Table 26, which gives statistics of the numbers and types of municipalities in 1927, except that the New Brunswick figures are for 1921.

26.—Number of Municipalities in Canada, by Provinces and Classes, 1927.

Provinces.	Cities.	Towns.	Villages.	Counties.	Rural Municipalities.	Local Improvement Districts.	Total No. of Municipalities.
Prince Edward Island	1	6	–	–	–	–	7
Nova Scotia	2	43	–	–	24	–	69
New Brunswick[1]	3	23	4	15	–	–	45
Quebec	24	96	288	74	992[2]	–	1,474
Ontario	26	146	156	37[3]	563[4]	–	928
Manitoba	4	30	21	–	120	–	175
Saskatchewan	8	79	372[5]	–	301	18	778
Alberta	6	54	128[5]	–	169	229[6]	586
British Columbia	33	–	6	–	30	–	69
Canada	**107**	**477**	**975**	**126**	**2,199**	**247**	**4,131**

[1]From Census returns of 1921. [2]Including 9 independent rural municipalities. [3]There are 43 counties in all geographically, but a number of them are united for municipal purposes. [4]Officially known as townships. [5]Including six summer resort villages. [6]In the year 1926.

Subsection 1.—All Municipalities.

Municipal Assessments.—Throughout the Dominion, the chief basis of municipal tax revenue is the real estate within the limits of the municipalities, though in certain provinces personal property, income and business carried on are also taxed. General taxes are normally assessed at the rate of so many mills on the dollar of the assessed valuations, while in the Prairie Provinces the values of improvements made to real property are often rated at a very low figure, *e.g.*, in Saskatchewan, where the taxable valuations of buildings are less than 10 p.c. of the taxable valuations of lands, and in Alberta, where they are less than 17 p.c. of the taxable valuations of lands, as shown in Table 27.

There are various reasons for fluctuations in assessment valuations, due to differences in laws and varying practices with regard to assessment as between provinces, as between classes of municipalities and as between municipalities of the same class from year to year. Such matters are more fully dealt with in the special report of the Bureau on "Assessment Valuations by Provinces".

Land valuations in the West, which in earlier years were somewhat inflated, have of late been assessed on a sounder basis, and in some provinces the Equalization Boards have placed a more equitable valuation on lands as among the various rural municipalities.

27.—Summary Statement showing Total Assessment Valuations of Municipalities, by Provinces, for 1926 and 1927.

Provinces		Taxable Real Property.		
		Land.	Buildings.	Total.
		$	$	$
Prince Edward Island	1926	–	–	30,356,947
	1927	–	–	30,420,780
Nova Scotia[1]	1926	–	–	140,000,829
	1927	–	–	136,434,599[2]
New Brunswick	1926	–	–	122,791,799
	1927	–	–	155,618,105
Quebec	1926	–	–	1,894,905,708
	1927	–	–	1,917,424,449
Ontario	1926	1,254,870,152	1,228,159,563	2,483,029,715
	1927	1,264,251,710	1,269,447,338	2,533,699,048
Manitoba	1926	–	–	560,330,739
	1927	–	–	548,220,390
Saskatchewan	1926	962,686,196	91,109,368	1,053,795,564
	1927	959,835,874	94,042,278	1,053,878,152
Alberta	1926	510,534,919	72,638,358	583,173,277
	1927	499,133,036	80,414,380	579,547,416
British Columbia	1926	303,232,024	285,290,683	588,522,707
	1927	302,889,841	306,802,860	609,692,701
Total all Provinces	**1926**	**3,031,323,291**	**1,677,197,972**	**7,456,907,285**
	1927	**3,026,110,461**	**1,750,706,856**	**7,564,935,640**

Provinces.		Personal Property.	Income.	Other Taxable Valuations.	Total Taxable Valuations.	Exempted Property.
			$	$	$	$
Prince Edward Island	1926	8,292,018	1,924,718	47,500	40,621,183	–
	1927	6,690,245	771,551	72,980	37,955,556	1,789,500
Nova Scotia[1]	1926	24,135,248	1,545,270	–	165,681,347	38,407,469
	1927	24,178,951[2]	1,497,257	–	162,040,250	38,875,486
New Brunswick	1926	24,935,823	26,186,933	–	176,341,215[3]	–
	1927	26,913,024	41,028,124	–	225,985,913[3]	11,921,800
Quebec	1926	–	–	8,493,169	1,903,398,877	582,009,207
	1927	–	–	8,927,823	1,926,352,272	618,929,872
Ontario	1926	–	129,656,370	194,225,108	2,806,911,193[4]	452,623,156
	1927	–	130,268,969	198,952,035	2,862,920,052[4]	468,299,816
Manitoba	1926	10,967,892	–	9,051,639	580,350,270	142,448,743
	1927	10,069,954	–	9,213,822	567,504,166	143,570,522
Saskatchewan	1926	–	2,399,010	39,497,208	1,095,691,782	–
	1927	–	2,518,415	40,316,341	1,096,712,908	–
Alberta	1926	811,950	–	6,982,909	592,287,676[5]	–
	1927	362,297	–	9,923,206	589,832,919	–
British Columbia	1926	–	–	–	588,522,707	85,800,621
	1927	–	–	–	609,692,701	83,745,240
Total all Provinces	**1926**	**69,142,931**	**161,712,301**	**258,297,533**	**7,949,806,250**	**1,301,289,196**
	1927	**68,214,471**	**176,084,316**	**267,406,207**	**8,708,996,737**	**1,367,132,236**

[1]Personal property and income assessments for cities are for Sydney only. [2]Including $70,557 exempted property, not separable. [3]Including $2,426,660 total assessment not separable. [4]In addition assessments for schools only were townships $11,289,991, towns and villages $22,496,766 and cities $82,579,118 1926 and townships $4,218,214, towns and villages $20,150,669 and cities $84,278,337 in 1927. [5]Including $1,319,540 total assessment not separable.

Bonded Indebtedness.—Like other Canadian governing bodies, the municipalities of the greater part of Canada borrowed rather freely during the boom period of 1900-12, and again during the period of inflation between 1917 and 1920. The bonded indebtedness of Ontario municipalities rose from $153,568,409 in 1913 to $434,464,056 in 1927, while that of Quebec municipalities increased from $132,078,58[illegible] in 1914 to $260,435,420 in 1927, and a similar increase took place in other provinces. The recent growth in the bonded indebtedness of all classes of municipalities is shown by provinces in Table **28.** The figures show that the municipal bonded indebtedness increased during the seven-year period in every province. In Saskatchewan net debenture debt is shown for cities in 1921 and 1922, for towns and villages in 1922 and for all municipalities in 1923 to 1926, while in 1927 the statistics represent gross debenture debt. In Alberta the statistics given represent principally net debenture debt in 1924, 1925, 1926 and 1927. All other provinces give total debenture debt throughout.

28.—Total Bonded Indebtedness of All Classes of Municipalities, by Provinces, 1921-1927.

Provinces.	1921.	1922.	1923.	1924.	1925.	1926.	1927.
	$	$	$	$	$	$	$
P.E.I[1].....	1,202,200	1,254,900	1,290,800	1,143,550	1,163,050	1,247,545	1,452,4[illegible]
Nova Scotia...	22,451,743	23,541,759	24,248,782	25,348,664	25,772,635	26,281,152	28,381,[illegible]
N.B.....	7,578,567	10,025,633	7,974,362	17,350.225	10,660,863	17,091,550	15,707,[illegible]
Quebec.....	194,877,251	207,883,993	214,260,791	230,424,908	231,358,779	246,541,730	260,435,[illegible]
Ontario.....	317,613,283	349,276,606	376,512,602	430,010,501	405,178,853	413,474,813	434,464,[illegible]
Manitoba.....	65,463,239	68,811,040	73,908,963	73,944,105	79,211,867	80,716,272	83,017,[illegible]
Saskatchewan..	35,040,336	52,787,655	51,709,772	49,448,911	46,732,040	44,769,529	54,361,[illegible]
Alberta.....	53,429,558	60,832,650	70,999,611	65,414,317	57,908,593	56,950,712	62,414,[illegible]
B.C.....	97,495,984	98,761,630	96,273,987	96,106,151	99,055,201	102,853,228	107,376,[illegible]
Total.....	**795,152,161**	**873,175,866**	**917,179,070**	**989,191,332**	**956,991,881**	**989,926,531**	**1,047,610,[illegible]**

[1]The figures for 1921 to 1923 are for Charlottetown, Summerside and Montague only; for 1924, Charlottetown and Kensington; for 1925 Charlottetown, Kensington and Montague, and for 1926 and 1927 returns were made by all urban municipalities, but the towns of Georgetown and Alberton had no bonded debt.
[2]New Brunswick figures are for 3 cities, 16 towns, 1 village and 13 counties in 1921; 2 cities, 9 towns, 10 counties in 1922; 1 city, 6 towns and 6 counties in 1923; 3 cities, 18 towns, 2 villages and 15 counties 1924 and 1927; 2 cities, 13 towns, 2 villages and 15 counties in 1925; 3 cities, 18 towns, 1 village and 15 counties in 1926.

29.—Principal Financial and Other Statistics of Canadian Cities and Towns with Population of 10,000 and over, 1927.

Provinces and Cities.	Area.	Population.	Total assessed value of taxable property.	Grand total receipts.	Grand total expenditures.	Grand total assets.	Total liabilities
	acres.	No.	$	$	$	$	$
Prince Edward Island—							
Charlottetown.....	836	11,362	6,451,663	210,248	209,714	1,843,595	1,618,[illegible]
Nova Scotia—							
Halifax.....	4,400[1]	58,372[2]	44,370,200	4,660,402	4,660,402	16,582,182	16,582,[illegible]
Sydney.....	3,730[1]	22,545[2]	12,528,990	1,129,952	1,129,952	4,732,815	4,732,[illegible]
Glace Bay.....	6,200[2]	17,007[2]	4,941,771	607,038	619,261	1,981,064	1,525,[illegible]
New Glasgow.....	2,640[1]	11,500[1]	5,744,000	300,234	300,234	1,283,265	889,[illegible]
Amherst.....	2,500[1]	10,000[1]	4,325,940	286,576	285,661	1,595,338	1,067,[illegible]
New Brunswick—							
Saint John.....	13,440	60,000	51,171,750	2,891,147	2,893,056	10,960,729	6,345,[illegible]
Moncton.....	2,093	20,280	22,342,070	1,312,291	1,312,291	4,803,131	4,583,[illegible]
Fredericton.....	17,360	8,114[2]	7,897,213	565,455	569,459	1,138,151	791,[illegible]

29.—Principal Financial and Other Statistics of Canadian Cities and Towns with a Population of 10,000 and over, 1927—concluded.

Provinces and Cities.	Area.	Population.	Total assessed value of taxable property.	Grand total receipts.	Grand total expenditures.	Grand total assets.	Total liabilities.
	acres.	No.	$	$	$	$	$
Quebec—							
Montreal	32,155	989,835	836,203,402	66,704,338	65,872,775	198,476,562	164,567,282
Quebec	6,380	131,071	102,928,689	8,232,841	9,007,246	33,671,951	21,948,332
Verdun	1,426	46,477	29,579,150	2,089,920	2,089,969	8,479,723	6,075,545
Three Rivers	2,560	35,000	19,762,525	1,494,707	1,546,355	9,225,591	6,517,699
Hull	4,000	27,087	18,360,882	879,354	862,947	6,468,830	3,651,024
Sherbrooke	3,104	26,300	23,739,740	2,823,789	2,812,260	13,848,718	6,253,132
Outremont	975	23,775	33,065,348	1,302,594	1,294,300	6,114,646	5,245,606
Westmount	976	22,631	61,768,850	3,046,093	3,046,093	9,564,373	8,274,701
Lachine	2,996	15,234	23,667,093	921,714	920,947	6,171,811	4,594,247
Shawinigan Falls	1,280	13,171	19,825,391	344,174	376,564	2,689,547	2,025,583
St. Hyacinthe	1,091	12,650	6,392,570	419,569	422,036	3,183,736	1,426,574
Chicoutimi	1,200	11,447	7,365,450	441,194	456,191	2,377,295	1,636,930
Lévis	2,222	10,622	5,207,821	306,619	320,966	2,186,936	1,224,166
Joliette	1,288	10,572	5,460,039	237,878	239,684	2,543,802	982,629
Valleyfield	358	10,051	4,119,300	199,249	191,763	1,004,578	664,337
Jonquière	1,800	10,000	4,025,824	443,109	446,335	1,601,368	1,010,046
St. Jean	755	10,000	7,344,445	845,123	845,180	3,327,832	1,432,968
Ontario—							
Toronto	17,830	556,691[3]	910,516,117	35,032,829	33,713,031	231,193,487	191,509,841
Hamilton	6,789	123,359[3]	153,482,460	7,533,700	7,301,418	42,613,371	27,211,002
Ottawa	4,120	119,254[3]	144,633,533	6,114,491	6,103,423	34,306,274	26,148,897
London	7,212	64,293[3]	74,192,388	No return.	No return.	No return.	No return.
Windsor	3,131	61,095[3]	70,374,450	3,423,488	3,883,097	16,106,864	14,458,970
Brantford	3,159	27,739[3]	26,971,497	1,481,224	1,527,237	7,172,355	6,187,254
Kitchener	2,996	25,856[3]	22,045,107	1,404,368	1,341,879	6,837,900	4,731,569
Fort William	9,865	22,518[2]	30,782,062	1,436,170	1,452,953	11,760,502	11,616,049
St. Catharines	1,860	22,376[2]	22,223,150	1,325,328	1,285,807	6,486,647	6,112,910
Sault Ste. Marie	4,900	21,776[3]	17,359,261	983,004	973,880	6,665,172	6,188,614
Kingston	2,641	21,633[3]	16,321,960	944,002	933,270	3,375,893	2,925,285
Peterborough	2,827	21,519[3]	22,791,567	956,034	956,256	7,265,183	6,043,130
Guelph	3,104	19,007[3]	13,246,729	1,164,807	1,086,371	6,988,354	4,653,478
Niagara Falls	1,655	18,492[3]	16,839,199	1,047,542	1,092,937	4,057,848	4,057,848
Stratford	2,835	18,058[3]	14,567,610	819,976	809,430	5,562,480	4,148,151
Port Arthur	8,700	17,413[3]	19,251,790	1,227,476	1,239,660	10,209,426	8,887,822
Oshawa	3,356	16,941[3]	11,964,930	815,919	773,018	4,026,483	3,922,590
St. Thomas	1,800	16,586[3]	16,221,747	932,909	862,235	3,217,470	2,668,738
Sarnia	1,770	16,066[3]	17,105,658	1,035,586	892,341	3,488,262	2,708,072
Chatham	1,650	14,727[2]	13,226,346	646,422	611,706	1,404,627	987,307
North Bay	2,100	14,354[3]	8,589,342	590,181	580,105	2,629,976	2,467,220
Ford City	1,677	13,105[3]	19,913,480	728,838	848,359	4,658,466	4,474,442
Belleville	1,800	12,634[3]	9,696,952	584,270	580,285	4,314,285	3,333,075
Galt	1,600	12,576[2]	11,081,590	643,942	633,875	5,004,299	3,834,841
Owen Sound	2,909	12,234[3]	8,511,590	690,878	560,538	3,289,662	2,029,123
Timmins	740	11,522[3]	7,580,065	858,751	544,898	1,485,343	1,373,507
Woodstock	1,525	10,106[3]	6,986,414	463,746	415,932	1,654,095	1,320,845
Welland	1,100	10,085[3]	9,143,640	557,833	564,668	2,946,287	2,025,113
Manitoba—							
Winnipeg	15,961	198,932	237,494,877	–	–	–	57,951,688[4]
Brandon	5,760[1]	16,954	14,048,422	–	–	–	3,239,212[4]
St. Boniface	11,641	15,257	10,718,240	–	–	–	5,295,302[4]
Saskatchewan—							
Regina	8,408	39,500	40,644,434	3,226,075	3,374,373	20,298,046	15,860,040
Saskatoon	8,480	32,500	28,865,570	2,387,721	2,786,364	12,552,470	12,826,893
Moose Jaw	9,760	19,400	21,997,615	1,697,334	1,708,874	9,905,549	9,329,981
Alberta—							
Calgary	25,920[1]	72,500	58,061,065	5,485,645	5,293,137	–	25,840,734
Edmonton	28,200[1]	67,083	59,783,865	4,518,683	4,185,219	–	28,090,469
Lethbridge	6,944[2]	12,000	9,748,350	676,560	620,935	–	2,677,022
Medicine Hat	10,880[2]	10,000	10,051,870	648,845	618,947	–	2,973,475
British Columbia							
Vancouver	10,784	128,350	232,335,046	8,115,070	8,164,900	–	40,982,797
Victoria	4,637	38,750	54,335,921	2,809,638	2,747,067	–	17,941,591
New Westminster	3,481	18,000	19,338,202	1,138,421	1,167,212	–	5,799,946

[1]For the year 1925. [2]Census 1921. [3]For the year 1926. [4]Debentures outstanding.

Section 4.—National Wealth and Income.

Subsection 1.—National Wealth.

There are several methods of computing national wealth, *i.e.*, the aggregate value of the property within the nation, apart from undeveloped natural resources. Perhaps the most familiar of these methods is that of working back to capital value through income tax returns, but this can be applied only in countries where incomes are thoroughly appraised. A second method is that of estimation from probate returns, the value of the estates of deceased persons being regarded as representative. A third is that of a complete census, based upon a canvass of the individual. In the accompanying tables a fourth method, namely, the so-called "inventory" method, is employed; it consists in totalling the amounts known from various sources to be invested in agriculture, manufactures, dwellings, etc.

It must be understood that statistics of this character are suggestive and indicative rather than strictly accurate. The concept of wealth is distinctly intangible, and there are numerous elements of uncertainty in a calculation of this nature. The present survey, which includes the provincial distribution of Canadian wealth, places the estimated aggregate of the tangible wealth of the Dominion, exclusive of undeveloped natural resources, at $26,691,482,000 in 1926, as compared with $25,673,174,000 in 1925 and $22,195,302,000 in 1921. These figures however, are not exactly comparable, in view of certain improvements and additions that have been made in the method of estimation. An increase of about $500,000,000 is shown in the national wealth in the year 1926, and of nearly $3,500,000,000 in the five years 1921 to 1926.

Aggregate and Per Capita Wealth of the Provinces, 1926.—As regards the provincial distribution of wealth, Ontario ranked first with estimated aggregate wealth of $9,130,189,000, or 34·2 p.c. of the total, and Quebec second, with estimated wealth of $6,656,108,000, or 24·9 p.c. of the whole. Saskatchewan was third with estimated wealth of $2,920,739,000, or 10·9 p.c. of the total for the Dominion.

While Ontario led in absolute wealth, the western provinces came first in per capita wealth; British Columbia held first rank with a per capita wealth of $3,84[illegible] Alberta second with $3,608; Saskatchewan third with $3,559; and Manitoba fourth with $2,957. These figures may be compared with $2,902 and $2,598, the per capita wealth of Ontario and Quebec, respectively, and $2,842, the per capita wealth for the whole Dominion. Further details are furnished in Table **30**.

As the statistics of population and wealth for the Yukon are uncertain, the per capita estimate of wealth is open to question, and has not been shown.

30.—Provincial Distribution of the National Wealth of Canada, with Percentage and per Capita Analyses, 1926.

NOTE.—Figures for 1921 and 1925 are given on pp. 849–50 of 1927–28 edition.

Province.	Estimated wealth.	Percentage distribution of wealth.	Estimated population June 1, 1926.	Percentage distribution of population.	Wealth per capita.
	$	p.c.	No.	p.c.	$
P.E. Island	145,745,000	0·6	87,000	0·93	1,6[illegible]
Nova Scotia	835,748,000	3·1	540,000	5·76	1,4[illegible]
New Brunswick	723,592,000	2·7	407,200	4·34	1,7[illegible]
Quebec	6,656,108,000	24·9	2,561,800	27·28	2,5[illegible]
Ontario	9,130,189,000	34·2	3,145,600	33·50	2,9[illegible]
Manitoba	1,889,606,000	7·1	639,056[2]	6·81	2,9[illegible]
Saskatchewan	2,920,739,000	10·9	820,738[2]	8·74	3,5[illegible]
Alberta	2,192,067,000	8·2	607,599[2]	6·47	3,6[illegible]
British Columbia	2,185,210,000	8·2	568,400	6·05	3,8[illegible]
Yukon	12,478,000	0·1	3,450	0·03	
Canada	**26,691,482,000**	**100.0**	**9,390,000**[1]	**100.00**[1]	**2,8[illegible]**

[1]Includes 8,850 population in the Northwest Territories, or 0·09 p.c. [2]Census population, 1926.

Wealth of Canada, by Items, 1926.—In the items included in Table **31**, all duplication has been excluded. In any consideration of the individual items, it should be remembered that each item covers only the portion of wealth which is mentioned in the description of the item. For example, the item of fisheries includes only capital invested in primary operations, while capital invested in fish canning and curing establishments is included under manufactures, though it might also be considered as part of the wealth connected with fisheries. In the same way, the items for manufactures do not include lands and buildings in urban centres, which are shown under the heading of urban real property.

The total agricultural wealth in 1926 was $7,817,718,000, the largest item in our national wealth, and 29·28 p.c. of the whole. This amount included the value of agricultural production in 1926, or $1,668,175,000 to cover the average stocks of agricultural goods in the possession of farmers and traders and the amount invested in the preparation for the new crop.

The second largest element in the national wealth was urban real property. This includes the assessed valuations of taxed and exempted property, to which was added one-third to provide for under-valuation by assessors and for roads, bridges and sewers. The estimated value, as based on returns for 1926 received in the Bureau from the municipalities, was $7,081,375,000, or 26·53 p.c. of the total wealth of the Dominion.

The wealth invested in steam railways, computed from the cost of road and equipment, and distributed by provinces on the basis of mileage, constituted the next largest item, amounting to $2,890,000,000, or 10·83 p.c. of the total.

Another important item is the tangible value of the forests, amounting to $1,866,613,000, or 6·99 p.c., which includes the estimated value of accessible raw materials, pulpwood, and capital invested in woods operations. This year for the first time this item includes an estimate of the present value of young growth, accounting for an increase of $525,000,000 in this year's estimate over that for 1925.

The value of machinery and tools in manufacturing establishments and of lands and buildings of manufacturing concerns in rural districts was estimated at $1,039,910,000 in 1926, or 3·90 p.c. In addition the estimated value of materials on hand and stocks in process in manufacturing establishments was set at $684,061,000 in 1926, or 2·56 p.c. This item in 1925 included an estimate for stocks of manufactured goods in the hands of dealers, but in the present statement this is included in the item for trading establishments, which shows the estimated value of furniture and fixtures, delivery equipment, and materials and stocks on hand in 1926 as $813,345,000, or 3·04 p.c. of the total.

On the basis of the estimated population of 1926 of 9,390,000, the per capita investment in agricultural wealth was $833, in urban real property, $754, in steam railways, $308, in the forests $199, and in household furnishings and personal property, $127.80. The per capita wealth of all kinds was $2,842. Further details of the items are presented in Tables **31** and **32**.

31.—An Estimate of the National Wealth of Canada, with Percentage and Per Capit Distribution of Component Items, 1926.

Classification of Wealth.	Aggregate amount	Percentage of total.	Average amount per head of population
	$	p.c.	$
Farm values (land, buildings, implements, machinery and livestock)	6,149,543,000	23·04	654
Agricultural products in the possession of farmers and traders	1,668,175,000	6·24	177·
Total agricultural wealth	7,817,718,000	29·28	832·
Mines (capital employed)	688,750,008	2·58	73·
Forests (estimated value of accessible raw materials, pulpwood, and capital invested in woods operations)	1,866,613,000	6·99	195·
Fisheries (capital invested in boats, gear, etc., in primary operations)	29,038,613	0·12	3·
Central electric stations (capital invested in equipment, materials, etc.)	389,082,000	1·46	41·
Manufactures (machinery and tools, estimate for lands and buildings in rural districts; duplication excluded)	1,039,910,000	3·90	110
Manufactures (materials on hand and stocks in process)	684,061,000	2·56	72·
Construction, custom and repair (capital invested in machinery and tools and materials on hand)	91,783,000	0·34	9·
Trading establishments (furniture and fixtures, delivery equipment and materials and stocks on hand	813,345,000	3·04	86·
Steam railways (investment in road and equipment)	2,890,000,000	10·83	307
Electric railways (investment in road and equipment)	222,424,346	0·83	23·
Canals (amount expended on construction to March 31, 1927)	204,627,000	0·77	21·
Telephones (cost of property and equipment)	227,156,000	0·85	24·
Urban real property (assessed valuations and exempted property and estimate for under-valuation by assessors and for roads, sewers, etc.)	7,081,375,000	26·53	754·
Shipping (estimated from 1918 census)	106,000,000	0·40	11·
Imported merchandise in store (one-half imports during year)	504,131,000	1·89	55·
Automobiles (estimate of value automobiles registered)	531,768,000	1·99	56·
Household furnishings, clothing, etc. (estimated from production and trade statistics)	1,200,000,000	4·50	127·
Specie, coin and other currency held by Government, chartered banks and general public	303,700,000	1·14	32·
Grand Total	**26,691,482,000**	**100.00**	**2,842.**

Analyses by Provinces and Classes of Wealth.—In Table 32 will be foun detailed statistics of the wealth of each province, by leading items. In this tab the specie holdings, for example, are distributed among the provinces by populatio since they are an asset of Canada as a whole rather than of the particular locali in which they happen to be deposited.

32.—Estimate of National Wealth of Canada, 1926, by Provinces and Classes.

NOTE.—For a fuller description of the various items, see the table immediately preceding.

Classification of Wealth.	Canada.	Prince Edward Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.
	$	$	$	$	$	$
Farm values	6,149,543,000	65,684,000	131,192,000	138,612,000	1,085,440,000	1,727,454,
Agricultural products	1,668,175,000	25,525,000	41,251,000	36,786,000	271,001,000	482,481,
Total agricultural wealth, 1926	7,817,718,000	91,209,000	172,443,000	175,398,000	1,356,441,000	2,209,935,
Mines	688,750,008	[1]	60,312,087	3,533,577	112,460,615	278,657,
Forests	1,866,613,000	–	70,143,000	121,577,000	604,878,000	324,999,
Fisheries	29,038,613	906,045	7,979,774	3,841,518	2,054,832	3,337,
Central electric stations	389,082,000	350,000	6,381,000	5,331,000	125,518,000	184,931,
Manufactures (machinery and tools, and estimate for capital in rural lands and buildings; duplication excluded)	1,039,910,000	1,095,000	43,791,000	33,281,000	322,682,000	495,468,

32.—Estimate of National Wealth of Canada, 1926, by Provinces and Classes —concluded.

Classification of Wealth.	Canada.	Prince Edward Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.
	$	$	$	$	$	$
Manufactures (materials on hand and stocks in process)	684,061,000	430,000	12,859,000	19,481,000	197,358,000	368,311,000
Construction, custom and repair	91,783,000	122,000	1,348,000	1,310,000	32,950,000	36,582,000
Trading establishments	813,345,000	3,598,000	29,859,000	26,061,000	220,842,000	293,902,000
Steam railways	2,890,000,000	20,005,000	102,984,000	139,744,000	344,270,000	785,024,000
Electric railways	222,424,346	–	10,644,085	3,069,293	60,439,717	101,722,079
Canals	204,627,000	–	1,494,000	44,000	38,146,000	164,943,000
Telephones	227,156,000	869,000	7,903,000	4,228,000	44,588,000	89,822,000
Urban real property	7,081,375,000	9,855,000	182,867,000	91,443,000	2,541,467,000	2,756,235,000
Shipping	106,000,000	672,000	10,572,000	2,593,000	35,195,000	30,414,000
Imported merchandise in store	504,131,000	585,000	11,216,000	13,647,000	138,862,000	253,531,000
Automobiles	531,768,000	2,249,000	16,452,000	13,810,000	67,056,000	248,075,000
Household furnishings, clothing, etc.	1,200,000,000	11,000,000	69,000,000	52,000,000	328,000,000	402,500,000
Specie, coin and other currency held by the Government, chartered banks and the general public	303,700,000	2,800,000	17,500,000	13,200,000	82,900,000	101,800,000
Total	**26,691,000,000**	**146,000,000**	**836,000,000**	**723,000,000**	**6,656,000,000**	**9,130,000,000**
Percentages	100	0·55	3·13	2·71	24·94	34·21

Classification of Wealth.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Yukon.
	$	$	$	$	$
Farm values	558,504,000	1,413,037,000	848,199,000	181,421,000	–
Agricultural products	147,050,000	364,840,000	254,739,000	44,502,000	–
Total agricultural wealth	705,554,000	1,777,877,000	1,102,938,000	225,923,000	–
Mines	10,636,439	5,119,845	102,875,177	108,594,954	6,560,124
Forests	40,797,000	83,691,000	126,067,000	494,461,000	–
Fisheries	970,352	95,694	237,435	9,609,209	6,017
Central electric stations	19,804,000	4,708,000	7,937,000	33,422,000	700,000
Manufactures (machinery and tools, and estimate for capital in rural lands and buildings: duplication excluded)	28,439,000	66,995,000	14,786,000	93,373,000[2]	–
Manufactures (materials on hand, and stocks in process)	19,365,000	6,272,000	11,907,000	48,078,000[2]	–
Construction, custom and repair	5,230,000	4,007,000	3,235,000	6,959,000	–
Trading establishments	67,726,000	58,596,000	50,778,000	61,983,000	–
Steam railways	310,254,000	524,890,000	364,563,000	294,077,000	4,189,000
Electric railways	15,409,904	3,589,046	6,161,356	21,388,866	–
Canals	–	–	–	–	–
Telephones	21,848,000	13,907,000	26,278,000	17,713,000	–
Urban real property	478,470,000	228,492,000	224,015,000	568,531,000	–
Shipping	811,000	38,000	–	25,554,000	151,000
Imported merchandise in store	24,487,000	9,782,000	10,379,000	41,450,000	192,000
Automobiles	37,104,000	62,079,000	42,170,000	42,693,000	80,000
Household furnishings, clothing, etc	82,000,000	104,000,000	78,000,000	73,000,000	500,000
Specie, coin and other currency held by the Government, chartered banks and the general public	20,700,000	26,600,000	19,700,000	18,400,000	100,000
Total	**1,890,000,000**	**2,921,000,000**	**2,192,000,000**	**2,185,000,000**	**12,000,000**
Percentages	7·08	10·94	8·21	8·19	0·04

[1]Included with Nova Scotia. [2]Includes the Yukon.

Subsection 2.—National Income.

The national income of Canada is necessarily less than its national productio a total for which is suggested in the general survey of production on pages 203-2 of this volume. If, as there pointed out, there is no reason to suppose that tho whose activities are not connected with the production of "form-utilities" are le "productive" in the broad sense of the term than others, the total value of al production of 1926 must have been not less than $5,558,000,000.

In order to arrive at the figure of national income, however, certain he deductions from the above amount must be made—deductions especially connec with the maintenance of the industrial equipment of the country—providing n only for depreciation but for obsolescence and replacement by new and improv apparatus of production. Altogether, the charges under this head may have b not less than $300,000,000 to $400,000,000. This would leave the 1926 income the Canadian people at somewhere in the neighbourhood of $5,100,000,000.

Incomes assessed for Income War Tax in Canada.—In those countries the world where an income tax has been established for a considerable period time, the figures of the assessed income have been generally accepted as furnishi a guide both to the amount and to the distribution of the total national inco by classes. Estimates of the national income, based upon income tax statistics, ha been published, for example, in Great Britain and in the United States.

In Canada, the income tax is a newer thing than in either of the above-m tioned countries; also, in a newer country than either, incomes are to a great extent received in kind. Both of these considerations render it improbable that large a percentage of the total national income of Canada is brought under t notice of the income tax authorities as in Great Britain or the United States. Nev theless, the data collected by the Income Tax Branch of the Department of Natio Revenue, in the course of its administration of the income war tax, are significa both with regard to the total income assessed and with regard to the distributi of that income among various classes of the population, as well as by size of inco groups.

In Canada, in the fiscal year ended Mar. 31, 1921, 3,696 corporations a 190,561 individuals paid income tax on incomes aggregating $912,410,429; in t following year 8,286 corporations and 290,584 individuals paid income tax $1,462,529,170; in the fiscal year ended 1923, 6,010 corporations and 281,1 individuals paid income tax on $1,092,407,925; in the fiscal year ended 1924, 5,8 corporations and 239,036 individuals paid income tax on incomes aggregat $1,108,027,871; in the fiscal year ended 1925, 6,236 corporations and 225,514 in viduals paid income tax on incomes aggregating $999,160,248; in the fiscal y ended 1926, 5,738 corporations and 209,539 individuals paid income tax on incor aggregating $1,003,110,646. In the fiscal year ended 1927, after the exemp limit had been raised from $2,000 to $3,000 for married and from $1,000 to $1,5 for single persons, 116,029 individuals and 5,777 corporations paid income tax incomes aggregating $744,184,891, while in the fiscal year ended 1928, 122,026 in viduals and 6,121 corporations paid income tax on incomes aggregating $1,140,23 948. See Tables **33** to **35** for further details.

33.—Amount of Income assessed for the Purposes of the Income War Tax, by Provinces, for the fiscal years ended Mar. 31, 1924-1928.

Provinces.	Amount of Income Assessed.				
	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$
Prince Edward Island	2,301,305	1,590,134	1,841,389	1,564,607	1,906,145
Nova Scotia	33,785,631	22,613,331	19,997,318	14,586,443	19,187,670
New Brunswick	22,809,357	19,500,707	19,098,829	14,727,822	15,855,847
Quebec	296,331,345	288,731,449	267,852,358	214,172,270	247,108,323
Ontario	473,015,674	436,971,432	466,678,836	330,875,841	501,698,431
Manitoba	92,286,842	73,497,253	67,156,023	50,118,276	73,008,012
Saskatchewan	50,778,824	40,415,300	35,848,382	27,080,457	39,130,763
Alberta	53,310,467	41,874,721	42,586,566	29,766,879	37,164,202
British Columbia	81,525,976	72,390,078	80,619,635	60,602,251	103,587,321
Yukon	1,882,450	1,575,843	1,431,310	690,045	1,586,234
Total	**1,108,027,871**	**999,160,248**	**1,003,110,646**	**744,184,891**	**1,040,232,948**

34.—Number of Individual and Corporate Tax Payers, by Size of Income and Amount of Taxes paid under the Income War Tax Act, fiscal years ended Mar. 31, 1927 and 1928.

1.—INDIVIDUALS.

Income classes.	1927.		1928.	
	Number.	Amount.	Number.	Amount.
		$		$
Under $2,000	39,881	501,146	36,969	454,883
2,000 to $ 3,000	21,167	805,175	21,988	875,449
3,000 to $ 4,000	16,462	273,105	18,049	286,492
4,000 to $ 5,000	12,316	359,150	13,273	374,588
5,000 to $ 6,000	7,343	368,389	8,371	407,029
6,000 to $ 7,000	5,311	821,063	6,555	935,743
7,000 to $ 8,000	2,869	362,509	3,431	428,150
8,000 to $ 9,000	2,139	400,496	2,491	443,864
9,000 to $10,000	1,620	397,375	1,974	506,448
10,000 to $15,000	3,584	1,997,167	4,519	2,473,219
15,000 to $20,000	1,319	1,364,433	1,804	1,864,209
20,000 to $25,000	747	1,527,756	1,001	1,948,636
25,000 to $30,000	403	1,207,563	490	1,467,231
30,000 to $50,000	574	3,073,375	695	3,458,767
50,000 and over	294	4,718,891	416	7,552,499
Total	**116,029**	**18,177,593**	**122,026**	**23,477,207**
Unclassified amount	–	231,641	–	275,536
	–	**18,409,234**	–	**23,752,743**
Refunds	–	365,973	–	529,852
Net Total	–	**18,043,261**	–	**23,222,891**

34.—Number of Individual and Corporate Tax Payers, by Size of Income and Amou of Taxes paid under the Income War Tax Act, fiscal years ended Mar. 31, 1 and 1928—concluded.

2.—CORPORATIONS.

Income classes.	1927.		1928.	
	Number.	Amount.	Number.	Amou
		$		$
$ 2,000 to $ 3,000	1,201	142,447	1,202	122
$ 3,000 to $ 4,000	514	74,683	458	70
$ 4,000 to $ 5,000	375	95,089	397	10
$ 5,000 to $ 6,000	274	96,688	257	89
$ 6,000 to $ 7,000	338	230,306	412	280
$ 7,000 to $ 8,000	194	101,650	215	13
$ 8,000 to $ 9,000	178	109,451	161	94
$ 9,000 to $10,000	125	96,241	142	16
$10,000 to $15,000	550	654,903	580	644
$15,000 to $20,000	322	460,258	308	41
$20,000 to $25,000	264	608,225	276	55
$25,000 to $30,000	161	399,391	185	40
$30,000 to $50,000	410	1,399,389	435	1,42
$50,000 and over	865	25,124,296	1,086	29,7
Total	**5,777**[1]	**29,602,949**[1]	**6,121**[2]	**34,19**
Unclassified amount	–	188,857	–	2
	–	**29,791,806**	–	**34,48**
Refunds	–	448,758	–	1,12
Net Total	–	**29,343,048**	–	**33,34**

[1]Totals include 6 corporations paying $9,932 in taxation, grouped to conceal net income and iden of taxpayers.

[2]Totals include 7 corporations paying $13,936 in taxation, grouped to conceal net income and iden of taxpayers.

35.—Income Tax Paid, by Occupations of the Tax Payers, fiscal years ended Mar 1927 and 1928.

1.—INDIVIDUALS.

Classes.	1927.		1928.	
	Number.	Amount.	Number.	Amo
		$		$
Agrarians	3,248	223,801	3,163	2
Professionals	6,387	1,248,191	6,088	1,4
Employees	81,456	7,838,527	83,146	5,5
Merchants, retail	8,124	950,688	8,685	1,0
Merchants, wholesale	833	255,680	1,178	4
Manufacturers	863	378,941	901	3
Natural resources	119	47,641	172	
Financial	4,393	2,897,915	7,654	5,0
Personal corporations	128	717,174	470	2,5
Family corporations	279	318,150	1,138	7
All others	10,199	3,300,884	9,431	3,0
Unclassified	–	231,642	–	2
Total	**116,029**	**18,409,234**	**122,026**	**23,7**
Refunds	–	365,973	–	5
Net Total	–	**18,043,261**	–	**23,2**

5.—Income Tax Paid, by Occupations of the Tax Payers, fiscal years ended Mar. 31, 1927 and 1928—concluded.

2.—CORPORATIONS.

Classes.	1927.		1928.	
	Number.	Amount.	Number.	Amount.
		$		$
Agrarians	45	54,596	35	33,812
Merchants, retail	1,042	2,033,838	1,246	2,273,736
Merchants, wholesale	739	1,994,352	826	2,245,549
Manufacturers	1,950	13,593,412	2,030	16,132,580
Natural resources	257	2,857,728	210	2,594,892
Financial	583	2,459,733	693	2,554,505
Transportation and public utilities	306	4,875,878	310	5,480,732
All others	855	1,733,412	772	2,882,990
Unclassified	–	188,857	–	288,048
Total	**5,777**	**29,791,806**	**6,121**	**34,486,844**
Refunds	–	448,758	–	1,138,687
Net Total	**–**	**29,343,048**	**–**	**33,348,157**
Grand Total Individuals and Corporations	**–**	**47,386,309**	**–**	**56,571,048**

Subsection 3.—Outside Capital Invested in Canada and Canadian Capital Invested Elsewhere.

An estimate of the outside capital invested in Canada and the Canadian capital invested outside of the Dominion has been prepared by the Dominion Bureau of Statistics. While the calculations have been carefully made on the basis of the best available data, they are subject to a margin of error and are to be considered as indicating only the approximate situation. Information is entirely lacking on such important items as the transfer of capital arising through the change of residence from Canada to other countries or from other countries to Canada and the transfer of capital in one direction or the other by inheritance.

It is estimated that the total investment of British and foreign capital in Canada on Jan. 1, 1927, was $5,500,441,000. Of this sum $2,192,467,000 was British capital, $3,069,181,000 was from the United States and $238,793,000 from other countries. Though these totals are large, it should be remembered that the national wealth of the Dominion in 1926 has been estimated at $26,691,482,000, exclusive of the value of those undeveloped natural resources in which a good deal of the outside capital is invested, and that it is inevitable that at the present stage Canada should seek the assistance of outside capital to develop the undeveloped natural resources of the Dominion. It must also be borne in mind that Canadians have invested large amounts of capital abroad. The Bureau estimates that Canadian investments in other countries amounted to $1,330,586,000 at the beginning of 1927, or nearly a quarter of the amount of outside investments in Canada, Of this, $723,328,000 was placed in the United States, $118,479,000 in Great Britain and $488,779,000 in other countries. Side by side with these figures must also be placed the fact that recent prosperity has enabled Canada to buy back large amounts of Canadian securities held abroad. Details of the 1927 estimates are given in Tables 36 and 37, with comparative figures for 1926, showing the changes in the different items during 1926.

36.—Estimated Total Investments of British and Foreign Capital in Canada, as at Jan. 1, 1926 and 1927.

(000's omitted).

Items.	Jan. 1, 1926.				Jan. 1, 1927			
	Great Britain.	United States.	Other Countries.	Total.	Great Britain.	United States.	Other Countries.	Tot
	$	$	$	$	$	$	$	$
Government Securities (Dominion, Provincial and Municipal).	479,539	786,280	5,641	1,271,460	466,668	832,394	5,500	1,3
Public Utilities—								
Railways	956,050	437,054	37,500	1,430,604	955,008	450,512	40,000	1,4
Other public utilities (traction, light, heat, power, telephone, etc.)	123,260	182,876	40,337	346,473	124,995	268,162	39,530	4
Industries—								
Pulp, paper and lumber	42,441	351,709	72,850	467,000	53,920	377,722	62,759	4
Mining	90,384	216,508	13,858	320,750	91,384	217,908	14,058	3
Metal industries	51,837	246,463	3,652	301,952	51,505	240,883	3,619	2
All other industries	105,056	409,779	6,514	521,349	111,878	403,896	6,476	5
Trading establishments	39,403	144,312	4,900	188,615	59,109	142,704	4,851	2
Finance and insurance	91,000	42,000	12,000	145,000	91,000	47,000	12,000	1
Land and mortgage	187,000	83,000	50,000	320,000	187,000	88,000	50,000	3
	2,165,970	**2,899,981**	**247,252**	**5,313,203**	**2,192,467**	**3,069,181**	**238,793**	**5,5**

37.—Estimated Total Investments of Canadian Capital in British and Foreign Countries, as at Jan. 1, 1926 and 1927.

(000's omitted).

Items.	Jan. 1, 1926.				Jan. 1, 1927.			
	Great Britain.	United States.	Other Countries.	Total.	Great Britain.	United States.	Other Countries.	To
	$	$	$	$	$	$	$	
Canadian government credits and balances abroad	658	22,549	36,488	59,695	500	10,815	36,111	4
Balances of chartered banks abroad	39,246	117,739	39,246	196,231	52,112	156,336	52,112	2
Foreign securities held by banks	57,151	22,495	22,774	102,420	37,341	21,571	30,315	8
Investments of insurance companies abroad	15,491	151,222	79,177	245,890	16,976	165,717	86,766	2
Direct industrial investments	1,700	152,071	106,229	260,000	1,700	156,804	116,496	2
Miscellaneous	10,000	160,179	105,000	275,179	9,850	212,085	166,979	3
	124,246	**626,255**	**388,914**	**1,139,415**	**118,479**	**723,328**	**488,779**	**1,3**

CHAPTER XXII.—PRIVATE FINANCE.

PART I.—CURRENCY AND BANKING; LOAN AND TRUST COMPANIES.

Section 1.—Canada's Monetary System.

Historical.—Early trade in Canada was carried on by barter, which at times resulted (*e.g.*, in transactions between Indians and fur traders) in the adoption of beads, blankets, etc., as recognized media of exchange. Later, during the French period in Canada, while barter still formed perhaps the most important means of exchange between individuals and merchants, a more or less satisfactory currency system developed. Beaver and other furs, tobacco and wheat were at times used as substitutes for currency, the last-named being at one time a legal tender. A makeshift currency system was also developed during the French *régime*, when playing cards stamped with a value and redeemable yearly on the receipt of bills of exchange on Paris came into circulation. Other paper money was also issued, and the total amount outstanding at the time of the cession was estimated at 80,000,000 livres, which was nearly all lost to its holders.

The British Government next sought to establish a uniform standard of colonial currency, but since at this time French coinage again began to come into circulation and the Spanish dollar also rivalled the English shilling as the most common medium of exchange, this was not universally possible. English sovereigns were overrated in terms of dollars in an endeavour to encourage their circulation. A rate of 5s. to the dollar was set in Halifax and was in use in government accounting systems, while in Montreal York currency (the rates prevalent in New York), giving the dollar an exchange value of 7s. 6d. or 8s., was in common use.

Canadians again became more or less familiar with the characteristics of paper money as a result of the experiences of the various neighbouring northern States during the first half of the nineteenth century. During the war of 1812 this familiarity was increased by the establishment of an army bill office, issuing bills of various denominations, redeemable on presentation. The growing volume of trade between Canada and the United States also resulted in a tendency toward a decimal coinage, and in 1853 a measure was passed providing for the adoption of a decimal currency, with a dollar equivalent to the United States dollar; the British sovereign was made legal tender at $\$4.86\frac{2}{3}$. An Act of 1857 requiring all government accounts to be kept in dollars and cents came into force on Jan. 1, 1858; the formal adoption of decimal currency in the province of Canada dates from that time.

By the Uniform Currency Act of 1871 (34 Vict., c. 4), the decimal currency was extended throughout the Dominion, the British sovereign was made legal tender for $\$4.86\frac{2}{3}$ and the United States eagle legal tender for $10, while authority was taken to coin a Canadian $5 gold piece. No Canadian gold coinage was, however, issued prior to the establishment of the Canadian branch of the Royal Mint in 1908, the first coins then struck being sovereigns similar to those of Great Britain, but with a small "C" identifying them as having been coined in Canada. In May, 1912, the first Canadian $10 and $5 gold pieces were struck, but the Canadian gold coinage has so far been limited in amount, since Canadians have generally preferred Dominion notes to gold for use within the country, and when gold is needed for export, bullion or British and United States gold coin serve the purpose equally well.

The Ottawa Branch of the Royal Mint.—The Ottawa Mint was establishe as a Branch of the Royal Mint by the Ottawa Mint Proclamation, 1907, issued unde the Imperial Coinage Act, 1870, and was opened on Jan. 2, 1908. Previously th British North American provinces and, later, the Dominion of Canada obtaine their coins from the Royal Mint in London or from The Mint, Birmingham, Ltd and in its earlier years the operations of the Mint in Canada were confined to th production of gold, silver, and bronze coins for domestic circulation, of Britis sovereigns, and of small coinages struck under contract for Newfoundland an Jamaica. Previous to 1914 small quantities of gold bullion were refined, but dur in the war the Mint came to the assistance of the British Government by establish in a refinery in which nearly twenty million ounces of South African gold were treat on account of the Bank of England, and the subsequent great development of th gold-mining industry in Canada has resulted in gold-refining becoming one of th principal activities of the Mint. Gold coins have never been a popular medium exchange in Canada and none have been struck since 1919, most of the fine gol produced from the rough deposits being delivered to the Department of Finance the form of bars worth between $10,000 and $11,000 each, the balance being sol in a convenient form to manufacturers. The fine silver extracted from the roug gold, when not required for coinage, is sold on the New York market, or disposed of to local manufacturing firms.

Under its constitution as a Branch of the Royal Mint the Ottawa Mint ma coin and issue Imperial gold coins. The domestic currency of Canada as at preser authorised by the Currency Acts consists of $20, $10, $5 and $2½ gold pieces, 90 millesimal fineness (only $10 and $5 pieces have been issued), of $1, 50 cents, 2 cents, and 10 cents silver pieces, 800 millesimal fineness, of 5 cent pieces of pure nickel (from metal produced in Canada), and of one cent pieces in bronze. The silve 5 cents piece is still legal tender, but its coinage was discontinued in 1921, and th silver dollar has never been coined.

Gold.—Gold is used only to an insignificant extent as a circulating mediu in Canada, its monetary use being practically confined to reserves, but 5-dollar an 10-dollar gold pieces weighing respectively 129 and 258 grains, 9-10 pure gold i weight, have been coined, the Canadian gold dollar thus containing 23·22 grains pure gold. These coins were first issued in 1912, authority to issue them havi been conferred in 1910. By the Currency Act, 1910 (9-10 Edw. VII, c. 14), Briti sovereigns, which are legal tender for $4.86⅔, and other gold coins, and the 5-dolla 10-dollar and 20-dollar gold coins of the United States, which contain the sam weight of gold as Canadian gold coins of these denominations, are also legal tend These, however, are almost entirely divided between the Dominion Governme and the banks as reserves, and the chief circulating medium of the country is pr vided by paper and token currency.

Table **1**, compiled from the Report of the Deputy Master of the Mint, sho the value of the gold bullion received for treatment at the Ottawa Branch of t Royal Mint since its foundation, together with the gold coin and bullion issued. statement of the gold, silver, nickel and bronze coinages issued to the separa provinces and to the Dominion of Canada since 1858 is published as Table **2.** Tab **3**, compiled by the Dominion Comptroller of Currency, gives the form in whi the gold has been held by the Government in recent years. United States go it will be seen, greatly preponderates, and there is a considerable addition amount held by the banks, as it is legal tender in both countries.

1.—Value of Gold Bullion Received for Treatment and Value of Gold Coin and Bullion Issued from the Ottawa Branch of the Royal Mint, 1908-1928.

Years.	Gold Received.	Gold Coin Issued.		Bullion Issued.	Total Issued.
		Sovereigns.	Canadian.		
	$	$	$	$	$
1908 to 1916	10,463,623·94	1,585,058·69	4,868,420	2,916,552·87	9,370,031·56
1917	834,507·05	910·07	–	1,836,741·72	1,837,651·79
1918	4,942,051·11	636,404·24	–	3,461,337·80	4,097,742·04
1919	10,757,173·72	832,404·40	–	10,162,325·22	10,994,729·62
1920	11,530,413·82	19·47	–	11,729,633·29	11,729,652·76
1921	16,915,038·45	661·86	–	16,598,784·71	16,599,446·57
1922	22,474,548·41	–	–	22,452,310·79	22,452,310·79
1923	12,687,098·94	–	–	13,219,784·95	13,219,784·95
1924	2,298,565·73	–	–	2,224,224·68	2,224,224·68
1925	2,492,403·07	–	–	2,529,713·69	2,529,713·69
1926	28,434,159·27	–	–	27,858,765·72	27,858,765·72
1927	29,936,535·82	–	–	30,013,576·98	30,013,576·98
1928	27,392,510·27	–	–	26,980,873·75	26,980,873·75
Totals	534,056,876·38[1]	3,055,458·73	4,868,420	525,160,209·93[2]	533,084,088·66[2]

[1]Includes $352,898,246.78 of Bank of England gold received between 1915 and 1919.
[2]Includes $353,175,583.76 of Bank of England bullion issued between 1915 and 1919.

2.—Statement of Coinage (in dollars and cent denominations) issued to the Dominion of Canada, 1858-1928.

Years.	Gold.	Silver.	Nickel.	Bronze.	Total.
	$	$	$	$	$
Struck at Mints in England[1]—					
New Brunswick, 1861-2-4	–	95,000	–	20,000	115,000
1858 Nova Scotia, 1861-2-4	–	–	–	30,000	30,000
to Prince Edward Island, 1871	–	–	–	10,000	10,000
1907 Canada, 1858-1907	–	12,459,996	–	804,429	13,264,425
Totals	–	12,554,996	–	864,429	13,419,425
Struck at Royal Mint, Ottawa—					
1908 to 1916	4,868,420	8,595,327	–	459,204	13,922,951
1917	–	1,862,200	–	116,900	1,979,100
1918	–	2,402,000	–	131,817	2,533,817
1919	–	3,258,044	–	115,100	3,373,144
1920	–	1,356,000	–	209,085	1,565,085
1921	–	128,000	–	60,700	188,700
1922	–	24,000	69,000	12,400	105,400
1923	–	28,000	127,000	19,300	174,300
1924	–	–	74,500	11,900	86,400
1925	–	14,000	126,000	22,100	162,100
1926	–	50,000	168,500	28,200	246,700
1927	–	574,000	249,000	37,500	860,500
1928	–	867,000	250,000	92,100	1,209,100
Total	4,868,420	31,713,567	1,064,000	2,180,735	39,826,722

[1] Struck at the Royal Mint in London, or at The Mint, Birmingham, Ltd.

3.—Composition of Canadian Gold Reserves on Dec. 31, 1905-1928.

Years.	British Coin.	U.S. Coin.	Canadian Coin.	Bullion.	Total.
	$	$	$	$	$
1905	3,990,717	29,494,298	–	–	33,485,0
1906	7,375,857	31,040,149	–	–	38,416,0
1907	5,366,478	33,529,889	–	–	38,896,3
1908	6,261,715	54,909,076	–	–	61,170,7
1909	6,537,227	62,988,474	–	–	69,525,7
1910	6,304,524	68,261,279	–	222,934	74,788,7
1911	6,900,095	93,507,764	–	222,934	100,630,7
1912	4,554,691	98,648,736	650,185	222,934	104,076,5
1913	6,391,375	106,642,969	2,118,210	222,934	115,375,4
1914	4,482,524	86,382,620	3,440,150	320,345	94,625,6
1915	29,606,990	86,516,595	3,436,095	775,201	120,334,8
1916	29,333,111	86,034,920	3,426,760	803,002	119,597,7
1917	27,476,790	77,899,494	3,413,465	11,352,856	120,142,6
1918	27,362,255	75,785,665	3,411,465	14,701,439	121,260,8
1919	27,661,192	60,988,110	3,408,310	27,154,222	119,211,8
1920	26,728,016	35,896,485	3,387,125	35,090,344	101,101,9
1921	26,729,501	35,896,305	3,385,690	18,558,557	84,570,0
1922	26,730,576	67,941,550	3,340,650	34,572,504	132,585,2
1923	27,212,790	41,090,395	3,336,490	46,026,852	117,666,5
1924	26,342,019	77,173,105	3,327,125	34,905,387	141,747,6
1925	29,894,943	67,135,310	3,315,730	37,512,195	137,858,1
1926	32,133,941	72,423,610	3,221,930	23,415,643	131,195,1
1927	28,948,085	51,179,390	3,089,010	47,516,079	130,732,5
1928	34,163,297	31,018,970	2,931,835	25,202,771	93,316,9

Token Currency.—Canadian silver dollars weighing 360 grains, 37-40 fi are provided for by the Currency Act of 1910, but no silver dollars have ever be struck by the Mint. Fifty, twenty-five, ten and five-cent pieces of weight p portionate to their respective fractions of the dollar, and of the same fineness, a in circulation, but, by c. 9 of the Statutes of 1920, the standard of fineness w reduced to 8-10ths. In 1921 the coinage of a nickel five-cent piece weighing grains was authorized, and a number of these coins have appeared.[1] Silver coi are legal tender only up to ten dollars, nickel coins to five dollars, and bronze coi to twenty-five cents. Table 4 shows the *net* issue of silver and bronze coins (th is, the value issued less the value withdrawn), by years from 1901.

[1] Nickel coinage issued to the Dominion of Canada from the Mint to Dec. 31, 1928, had a face value $1,064,000.

4.—Circulation in Canada of Silver and Bronze Coin, Dec. 31, 1901-1928.

NOTE.—Figures supplied by the Mint.

Years.	Net Amount of Silver Coin Issued.		Amount per Head.		Net amount of Bronze Coin Issued.		Amount per Head.	
	A. During the Year.	B. Since 1858.	Col. A.	Col. B.	C. During the Year.	D. Since 1858.	Col. C.	Col. D.
	$	$	cts.	$	$	$	cts.	cts.
1901	420,000	8,279,924	7·8	1·53	41,000	676,429	0·8	11·0
1902	774,000	9,053,924	14·0	1·64	30,000	706,429	0·5	12·8
1903	633,850	9,687,774	11·1	1·70	40,000	746,429	0·7	13·1
1904	350,000	10,037,774	5·9	1·71	25,000	771,429	0·4	13·1
1905	450,000	10,487,774	7·4	1·72	20,000	791,429	0·3	13·0
1906	807,461	11,295,235	12·8	1·79	41,000	832,429	0·6	13·2
1907	1,194,000	12,489,235	17·9	1·88	32,000	864,429	0·5	13·0
1908	38,541	12,527,776	0·6	1·80	21,604	886,033	0·3	12·8
1909	648,700	13,176,476	9·0	1·83	39,300	925,333	0·5	12·9
1910	1,151,186	14,327,662	15·4	1·91	42,020	967,353	0·6	12·9
1911	1,343,001	15,670,663	18·6	2·18	54,275	1,021,628	0·8	14·2
1912	1,303,237	16,973,900	17·7	2·30	49,977	1,071,605	0·7	14·5
1913	927,131	17,901,031	12·3	2·38	55,572	1,127,177	0·7	15·0
1914	626,198	18,527,229	8·1	2·41	35,057	1,162,234	0·4	15·1
1915	61,344	18,588,573	0·8	2·36	50,354	1,212,588	0·6	15·4
1916	1,179,516	19,768,089	14·7	2·46	110,646	1,323,234	1·4	16·5
1917	1,790,941	21,559,030	21·9	2·64	116,800	1,440,034	1·4	17·6
1918	2,329,091	23,888,121	28·0	2·87	131,777	1,571,811	1·6	18·9
1919	3,196,027	27,084,148	37·7	3·19	115,011	1,686,822	1·4	19·9
1920	1,300,702	28,384,850	15·1	3·29	208,961	1,895,783	2·4	22·0
1921	40,191	28,344,659	0·5	3·22	60,543	1,956,326	0·7	22·0
1922	–	28,151,444[1]	0·0	3·16	11,742	1,968,068	0·1	22·1
1923	–	28,052,347[1]	0·0	3·11	19,118	1,987,186	0·2	22·0
1924	–	27,863,502[1]	0·0	3·04	11,430	1,998,616	0·1	21·8
1925	–	27,713,019[1]	0·0	2·99	21,854	2,020,470	0·2	21·8
1926	–	27,433,463[1]	0·0	2·92	23,363	2,043,833	0·2	21·8
1927	–	27,104,534[1]	0·0	2·84	36,363	2,080,196	0·4	21·9
1928	633,429	27,737,963[1]	6·5	2·87	91,461	2,171,657	0·9	22·4

Dominion Notes.—An important part of the Canadian monetary system is the paper currency of the Dominion Government. Under the Dominion Notes Act, 1914, (5 Geo. V, c. 4), the Dominion Government is authorized to issue notes up to and including $50,000,000 against a reserve in gold equal to one-quarter of that amount. By c. 4, Acts of 1915, "An Act respecting the Issue of Dominion Notes", the Dominion Government is authorized to issue notes up to $26,000,000 without any reserve of gold, $16,000,000 of the notes to be against certain specified Canadian railway securities guaranteed by the Dominion Government.[2] Notes

[1] The decrease shown in recent years is due to the withdrawal of worn and mutilated silver coins from circulation.

[2] The following is an outline of Canadian legislation respecting the issue of notes. After Confederation, by an Act of 1868 (31 Vict., c. 46), authority was given for the issue of notes to the extent of eight million dollars. The reserve was fixed at 20 p.c. up to a circulation of five millions; beyond that, 25 p.c. to be held as reserve. The law of 1870 (33 Vict., c. 10), authorized a limit of nine million dollars. The reserve was fixed at 20 p.c., but the nine millions were only to be issued when the specie amounted to two millions. Dollar for dollar was to be held beyond nine millions. In 1872 (35 Vict., c. 7), the reserve for the excess over nine millions was fixed at 35 p.c. in specie. This was amended in 1875 (38 Vict., c. 5) by requiring dollar for dollar beyond twelve millions; for the reserve between nine and twelve millions, 50 p.c. in specie was to be held. In 1878 the law respecting Dominion notes was extended to the provinces of Prince Edward Island, British Columbia and Manitoba. In 1880 (43 Vict., c. 13), the basis of the present standard was established. A reserve of 25 p.c. in gold and guaranteed debentures was required, of which 15 p.c. at least was to be in gold. The limit was raised to twenty million dollars. In 1894 (57-58 Vict., c. 21), the limit was raised to twenty-five millions, but this was found unworkable and was repealed in 1895 (58-59 Vict., c. 16), and authority was given to issue notes to any amount over twenty millions, on holding dollar for dollar beyond that sum. In 1903 (3 Edw. VII, c. 43), the Minister of Finance was required to hold gold and guaranteed debentures of not less than 25 p.c. on Dominion notes issued and outstanding up to thirty million dollars; beyond thirty millions he was required to hold gold equal to the excess. In 1914 (5 Geo. V, c. 4), this amount was raised to fifty millions and in 1915 to seventy-six millions, under the conditions stated in the text. The Finance Act, 1914 (5 Geo. V, c. 3), makes provision, in case of war, panic, etc., for the issue of Dominion notes against approved securities; this emergency arrangement was made a permanent feature by c. 48 of the Statutes of 1923.

may be issued to any additional amount in excess of $76,000,000, but (except as provided by the Finance Act, 1914—see foot-note on page 841) an amount of gold equal to the excess must be held. Thus Dominion notes normally approximate to gold certificates. Under the Act, the Government issues notes of the denominations of 25 cents, $1, $2, $4, $5, $50, $100, $500 and $1,000. In addition, "special" notes of the denominations of $500, $1,000, $5,000 and $50,000 (first issue of the last-mentioned September, 1918), are issued for use between banks only, the purpose being as a safeguard against theft. Table 5 gives the main statistics of Dominion note circulation and the reserve on which it has been built since 1890, Table 6 statistics of gold held by the Minister of Finance from 1919 to 1928, while Table 7 shows the use of notes of different denominations during the past six years.

5.—Dominion Note Circulation and Reserves at June 30, 1890-1928.

Years ended June 30.	Notes in circulation.					Reserves of Specie.	Circulation uncovered by Specie.[4]	Percentage of Specie Reserve to Circulation.
	Notes, $1,2, 4 and 5, and fractionals.[1]	Large notes $50, 100, 500, 1000, 5000.[2]	Total.					
			Amount.	Per capita.	Index No.[3]			
	$	$	$	$		$	$	p.c.
1890.....	6,665,942	8,691,950	15,357,892	3·20	65·3	3,285,515	10,125,711	21
1891.....	6,768,666	9,407,650	16,176,316	3·34	68·2	3,887,027	10,452,623	24
1892.....	6,898,348	10,384,350	17,282,698	3·53	72·0	5,061,577	10,414,455	29
1893.....	7,136,743	11,311,750	18,448,493	3·73	76·1	6,449,348	10,052,479	35
1894.....	6,967,818	13,093,900	20,061,718	4·09	83·5	8,292,405	9,822,647	41
1895.....	7,059,331	12,460,900	19,520,231	3·87	79·0	7,761,084	9,812,481	40
1896.....	7,377,096	12,995,100	20,372,196	4·00	81·6	8,758,252	9,667,295	43
1897.....	7,519,345	14,798,750	22,318,095	4·34	88·6	10,723,649	9,650,780	48
1898.....	8,157,243	14,020,950	22,178,193	4·26	86·9	10,813,739	9,417,788	49
1899.....	8,770,165	15,466,300	24,236,465	4·60	93·9	13,061,775	9,228,024	54
1900.....	9,640,473	16,454,450	26,094,923	4·90	100·0	12,476,044	11,672,213	48
1901.....	10,161,809	17,736,700	27,898,509	5·19	105·9	14,578,117	11,394,769	52
1902.....	11,029,985	21,750,400	32,780,385	5·92	120·8	18,901,639	11,932,080	58
1903.....	12,173,248	26,832,950	39,006,198	6·87	140·2	25,930,594	11,128,938	66
1904.....	12,581,833	28,992,950	41,574,783	7·13	145·5	23,422,625	16,205,492	56
1905.....	13,045,820	34,288,400	47,334,220	7·89	161·0	28,890,837	16,062,098	61
1906.....	14,633,576	35,307,850	49,941,426	8·09	165·1	29,013,931	18,980,829	58
1907.....	15,939,131	42,377,400	58,316,531	9·25	188·7	34,989,270	21,380,595	60
1908.....	15,279,675	47,778,450	63,058,125	9·71	198·2	39,141,184	21,950,275	62
1909.....	15,860,149	63,145,150	79,005,299	11·80	240·8	55,363,266	21,695,367	70
1910.....	17,871,477	71,414,250	89,285,727	12·90	263·3	66,409,121	20,929,940	74
1911.....	19,840,695	79,468,250	99,308,945	13·78	281·2	78,005,231	21,303,714	78
1912.....	22,982,588	88,949,650	111,932,238	15·19	310·0	92,442,098	19,490,140	82
1913.....	28,845,737	87,517,800	116,363,537	15·45	315·3	94,943,499	21,420,038	81
1914.....	24,586,448	89,595,650	114,182,098	14·84	302·8	92,663,575	21,518,523	81
1915.....	25,183,685	126,937,050	152,120,735	19·34	394·7	89,573,041	62,547,693	59
1916.....	27,283,425	148,213,750	175,497,175	21·84	445·7	114,071,032	61,426,143	66
1917.....	29,498,409	149,069,600	178,568,009	21·82	445·3	119,110,113	59,457,896	67
1918.....	32,623,514	248,716,000	281,339,514	33·78	689·4	114,951,618	166,387,896	41
1919.....	35,084,194	265,665,650	300,749,844	35·47	723·9	118,268,407	182,481,437	39
1920.....	37,203,890	254,812,400	292,016,290	33·83	690·4	95,538,190	196,478,100	33
1921.....	24,403,934	234,365,250	268,769,184	30·58	624·1	83,854,487	184,914,697	31
1922.....	31,404,161	201,344,250	232,748,411	26·13	533·3	85,495,068	147,253,343	37
1923.....	33,276,533	200,869,900	234,146,433	25·93	529·2	121,025,725	113,120,708	52
1924.....	34,816,442	175,492,150	210,308,592	22·98	469·0	96,732,954	113,575,638	46
1925.....	32,294,827	176,096,650	208,391,477	22·48	458·8	116,263,994	92,127,483	56
1926.....	32,512,285	143,200,630	175,712,915	18·71	381·8	94,999,481	80,713,434	54
1927.....	33,845,891	143,160,024	177,005,915	18·59	379·4	105,700,181	71,305,734	60
1928.....	35,051,708	165,703,650	200,755,358	20·79	424·3	80,756,302	119,999,056	40

[1]Includes Provincial notes amounting to $32,857 in 1890 and reduced gradually to $27,624 in 1928.
[2]Includes issue of $50,000 notes, 1919-1928.
[3]Per capita circulation in 1900 is taken as 100.
[4]The circulation uncovered by specie reserve was to a considerable extent covered between 1890 and 1910 by the holdings of guaranteed debentures, amounting to $1,946,666. Since 1914 it has been covered in the main by the holding against it of $16,000,000 of guaranteed Canadian railway securities and of other approved securities. On June 30, 1928, the Dominion notes outstanding against securities approved under the Finance Act, 1923, and c. 4 of the Statutes of 1915, amounted to no less than $57,250,000.

6.—Gold held by the Minister of Finance during the years 1919-1928.[1]

Years.	Gold Reserve held on Savings Bank Deposits.	Gold held for redemption of Dominion Notes.	Total Gold held by Minister of Finance.
	$	$	$
1919	4,909,675	118,489,692	123,399,367
1920	4,067,897	98,751,773	102,819,670
1921	3,666,009	84,568,064	88,234,073
1922	3,293,287	89,939,108	93,232,395
1923	3,154,358	120,651,627	123,805,985
1924	3,308,575	107,257,428	110,566,003
1925	3,241,490	119,744,819	122,986,309
1926	3,162,930	109,369,550	112,532,480
1927	3,083,440	107,417,631	110,501,071
1928	2,994,001	89,218,454	92,212,455

[1]Yearly averages.

7.—Denominations of Dominion Notes in Circulation, Mar. 31, 1923-1928.

Denominations.	1923.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$	$
$1	15,921,295	16,491,335	16,294,009	16,943,454	17,428,021	18,100,000
$2	11,854,372	12,051,573	11,617,597	12,231,463	12,609,981	13,039,460
$4	35,791	34,915	34,259	33,547	33,071	32,635
$5	2,154,470	2,975,625	1,959,850	428,672	700,147	294,072
$50	3,750	150	650	650	650	650
$500	3,034,000	2,022,000	1,826,000	1,790,500	1,736,000	1,791,500
$1,000	6,019,000	4,209,000	3,306,000	3,344,000	4,103,000	4,244,000
$500 special	2,000	–	–	–	–	–
$1,000 special	935,000	982,000	555,000	648,000	433,000	281,000
$5,000 special	124,845,000	96,840,000	24,240,000	16,600,000	9,950,000	7,810,000
$50,000 special	76,550,000	79,700,000	145,550,000	129,200,000	123,800,000	141,650,000
Fractional currency	1,275,372	1,290,715	1,301,036	1,335,494	1,346,145	1,360,549
Provincial notes	27,710	27,691	27,687	27,624	27,624	27,624
Total	**242,657,765**	**216,625,004**	**206,712,088**	**182,583,404**	**172,167,639**	**188,631,490**

Bank Notes.—Bank notes form the chief circulating medium in use in Canada. Under the Canadian Bank Act, the banks are authorized to issue notes of the denominations of $5 and multiples thereof to the amount of their paid-up capital. These notes are not in normal times legal tender.

In addition, during the period of the movement of the crops (Sept. 1 to Feb. 28-29), the banks may issue "excess" circulation to the amount of 15 p.c. of their combined capital and "rest or reserve" funds. In the event of war or panic, the Government may permit the "excess" to run all the year. The banks pay interest on this excess at 5 p.c. If a bank desires to extend its circulation, it may also do so by depositing dollar for dollar in gold or Dominion notes in the central gold reserves.

In case of insolvency, the notes of a bank are a first lien upon its assets. They are further secured, in case of insolvency, by the bank circulation redemption fund, to which all banks contribute on the basis of 5 p.c. of their average circulation not covered by gold or Dominion notes deposited in the central gold reserves established in 1913. The sum thus secured is available for the redemption of the notes of failed banks.

The figures of bank note circulation are given in Table 8. Table 9 brings together the statistics of the quantity of circulating media in the hands of the general public, yearly averages being used where possible.

8.—Statistics of Bank Note Circulation, 1900-1928.

NOTE.—The statistics in this table are averages computed from monthly returns in each year. Figures for 1892-99 will be found at p. 861 of the 1927-28 Year Book.

Years.	Paid up Capital.	"Rest Fund".	Bank Circulation Redemption Fund[1] (Deposited with Minister of Finance).	Notes in Circulation.		
				Amount.	Per capita.	Index No. per capita[2]
	$	$	$	$	$	$
1900	65,154,594	32,372,394	2,221,128	46,574,780	8·75	100·0
1901	67,035,615	36,249,145	2,487,541	50,601,205	9·36	107·0
1902	69,869,670	40,212,943	2,832,401	55,412,598	10·02	114·5
1903	76,453,125	47,761,536	2,971,260	60,244,072	10·62	121·4
1904	79,234,191	52,082,335	3,237,891	61,769,888	10·60	121·1
1905	82,655,828	56,474,124	3,448,463	64,025,643	10·68	122·1
1906	91,035,604	64,002,266	3,923,531	70,638,870	11·44	130·7
1907	95,953,732	69,806,892	4,304,524	75,784,482	12·02	137·4
1908	96,147,526	72,041,265	4,249,367	71,401,697	11·00	125·7
1909	97,329,333	75,887,695	4,317,006	73,943,119	11·04	126·2
1910	98,787,929	79,970,346	4,844,475	82,120,303	11·87	135·7
1911	103,009,256	88,892,256	5,353,838	89,982,223	12·57	143·7
1912	112,730,943	102,090,476	6,211,881	100,146,541	13·60	155·4
1913	116,297,729	109,129,393	6,536,341	105,265,336	13·98	160·0
1914	114,759,807	113,130,626	6,693,684	104,600,185	13·60	155·4
1915	113,982,741	113,020,310	6,756,648	105,137,092	13·37	152·8
1916	113,175,353	112,989,541	6,811,213	126,691,913	15·77	180·2
1917	111,637,755	113,560,997	6,324,442	161,029,606	19·69	225·0
1918	110,618,504	114,041,500	5,817,646	198,645,254	23·85	272·6
1919	115,004,960	121,160,774	6,054,419	218,919,261	25·82	295·3
1920	123,617,120	128,756,690	6,122,715	228,800,379	26·51	303·3
1921	129,096,339	134,104,030	6,417,287	194,621,710	22·15	253·1
1922	125,456,485	129,627,270	6,493,593	166,466,109	18·69	213·6
1923	124,373,293	126,441,667	6,662,665	170,420,792	18·88	215·8
1924	122,409,504	123,841,666	6,347,378	166,136,765	18·16	207·5
1925	118,831,327	123,295,866	6,026,617	165,235,168	17·83	203·8
1926	116,638,254	125,441,700	5,790,572	168,885,995	17·99	205·6
1927	121,666,724	130,320,897	5,861,646	172,100,763	18·08	206·6
1928	122,839,879	134,087,485	6,027,466	176,716,979	18·30	209·1

[1]This fund is in cash, *i.e.*, gold or Dominion notes.
[2]Circulation per capita in 1900 is taken as 100.

9.—Circulating Media in the Hands of the General Public, 1900-1928.

Years.	Silver.		Bronze.		Bank Notes.	
	Amount.	Per capita.	Amount.	Per capita.	Amount.[1]	Per capita.
	$	$	$	$	$	$
1900	7,911,998	1·49	635,429	·11	46,574,780	8·75
1901	8,279,924	1·53	676,429	·12	50,601,205	9·36
1902	9,053,924	1·64	706,429	·13	55,412,598	10·02
1903	9,687,774	1·70	746,429	·13	60,244,072	10·62
1904	10,037,774	1·71	771,429	·13	61,769,888	10·60
1905	10,487,774	1·72	791,429	·13	64,025,643	10·68
1906	11,295,235	1·79	832,429	·13	70,638,870	11·44
1907	12,489,235	1·88	864,429	·13	75,784,482	12·02
1908	12,527,776	1·80	886,033	·13	71,401,697	11·00
1909	13,176,476	1·83	925,333	·13	73,943,119	11·04
1910	14,372,662	1·91	967,353	·13	82,120,303	11·87

[1] Yearly average.

9.—Circulating Media in the Hands of the General Public, 1900-1928—concluded.

Years.	Silver[5].		Bronze[5].		Bank Notes.	
	Amount.	Per capita.	Amount.	Per capita.	Amount.[1]	Per capita.
	$	$	$	$	$	$
1911	15,670,663	2·18	1,021,628	·14	89,982,223	12·49
1912	16,973,900	2·30	1,071,605	·15	100,146,541	13·60
1913	17,901,031	2·38	1,127,177	·15	105,265,336	13·98
1914	18,527,229	2·41	1,162,234	·15	104,600,185	13·60
1915	18,588,573	2·36	1,212,588	·15	105,137,092	13·37
1916	19,768,089	2·46	1,323,234	·17	126,691,913	15·77
1917	21,559,030	2·64	1,440,034	·18	161,029,606	19·69
1918	23,888,121	2·87	1,571,811	·19	198,645,254	23·12
1919	27,084,148	3·19	1,686,822	·20	218,919,261	23·82
1920	28,384,850	3·29	1,895,783	·22	228,800,379	26·51
1921	28,344,569	3·22	1,956,326	·22	194,621,710	22·15
1922	28,151,444	3·16	2,037,068[4]	·23[4]	166,466,109	18·69
1923	28,052,347	3·11	2,183,186[4]	·24[4]	170,420,792	18·88
1924	27,863,502	3·04	2,269,104[4]	·25[4]	166,136,765	18·16
1925	27,713,019	2·99	2,416,941[4]	·26[4]	165,235,168	17·83
1926	27,433,463	2·92	2,608,698[4]	·28[4]	168,885,995	17·99
1927	27,104,534	2·84	2,893,980[4]	·30[4]	172,100,763	18·08
1928	27,737,963	2·87	3,244,735[4]	·34[4]	176,716,979	18·12

Years.	Dominion Notes, $1, $2, $4, $5 and fractionals.[2]		Total.		
	Amount.[1]	Per Capita.	Amount.	Per Capita.	Index Number per Capita.[3]
	$	$	$	$	$
1900	9,997,044	1·88	65,119,251	12·24	100·0
1901	10,595,169	1·97	70,152,727	13·06	106·7
1902	11,442,138	2·07	75,615,089	13·67	111·7
1903	12,321,172	2·17	82,999,447	14·63	119·5
1904	12,813,912	2·20	85,393,003	14·66	119·8
1905	13,499,894	2·25	88,804,740	14·82	121·1
1906	14,797,483	2·40	97,564,017	15·81	129·2
1907	15,973,227	2·53	105,111,373	16·68	136·3
1908	15,615,082	2·41	100,430,588	15·47	126·4
1909	16,235,774	2·43	104,280,702	15·58	127·3
1910	18,098,111	2·62	115,513,429	16·70	136·4
1911	21,497,429	2·98	128,171,943	17·79	145·3
1912	27,277,341	3·70	145,469,387	19·75	161·3
1913	29,067,278	3·86	153,360,822	20·37	166·4
1914	26,964,063	3·51	151,253,711	19·66	160·6
1915	25,881,570	3·29	150,819,823	19·18	156·7
1916	27,857,543	3·47	175,640,779	21·86	178·6
1917	31,221,311	3·82	215,249,981	26·31	214·9
1918	34,146,836	4·10	258,252,022	31·01	253·3
1919	35,492,643	4·19	283,182,874	33·40	272·8
1920	37,272,725	4·22	296,353,737	34·33	280·5
1921	33,825,582	3·85	258,748,277	29·44	240·5
1922	31,888,024	3·58	228,542,645	25·65	209·6
1923	33,387,155	3·70	234,043,480	25·92	211·8
1924	34,332,178	3·75	230,601,549	25·20	205·9
1925	32,175,284	3·47	227,540,412	24·55	200·6
1926	32,675,174	3·48	231,603,330	24·67	210·6
1927	32,323,314	3·40	234,422,591	24·63	201·2
1928	33,708,381	3·41	241,408,058	25·00	204·2

[1] Yearly average.

[2] Dominion notes of larger denominations in hands of banks are not included, but provincial notes, amounting to $27,623 in 1928, are included.

[3] Per capita circulation in 1900=100.

[4] Includes nickel coinage. See footnote on p 840

[5] Figures supplied by the Mint as at Dec. 31 of each year.

Section 2.—Banking in Canada.

Historical.—In the early days of banking quite the chief function of banks was to issue promissory notes payable to the bearer on demand; where the bank's credit was good these notes passed freely from hand to hand, creating the chief circulating medium in the Canadas, and in various cases in the Maritime Provinces were preferred to those issued by the provincial governments.

The lack of a uniform circulating medium in Canada was felt by the merchants of Montreal toward the end of the eighteenth century, and the prospectus of a proposed bank of issue to be known as the Canada Banking Company was issued in 1792. This scheme, however, depended chiefly on the co-operation of British capital and was frustrated by the outbreak of war with the French. A second project in 1808 for the incorporation of a Bank of Canada failed to secure the assent of the Legislature of Lower Canada.

At the close of the war of 1812, the army bill currency was withdrawn, and public attention once more turned to the expediency of securing a currency through the establishment of banks. The Bank of Montreal began business toward the end of 1817 as a private institution, under articles of association based on the first charter of the Bank of the United States. In the following year under similar articles of association the Quebec Bank was established, as well as the Bank of Canada at Montreal and the Bank of Upper Canada at Kingston. The three Lower Canadian institutions obtained their provincial charters in 1822, while the Bank of Upper Canada was superseded by a second Bank of Upper Canada, established at York (Toronto) as a chartered bank in 1821. Meanwhile the Bank of New Brunswick had been incorporated in 1820, while in Nova Scotia the Halifax Banking Co. (private) commenced business in 1825, and the Bank of Nova Scotia received a regular charter in 1832. All of these earlier banks made note issue their main business.

The Bank of British North America, previously incorporated in Great Britain, commenced business in Canada in 1836, while Molsons Bank was established in 1853, the Bank of Toronto in 1855, the Banque Nationale in 1860 and the Banque Jacques-Cartier (later the Banque Provinciale du Canada) in 1862. The Union Bank was established in 1866, the Canadian Bank of Commerce in 1867, the Merchants' Bank of Halifax (now the Royal Bank) in 1869, the Dominion Bank in 1871, the Bank of Hamilton in 1872, the Banque d'Hochelaga in 1873, the Bank of Ottawa in 1874, the Imperial Bank in 1875 and the Standard Bank in 1876.

The Canadian Banking System.[1]—A brief *résumé* of the Canadian banking system must emphasize its growth, from the beginning closely related to the Montreal produce and export trade, its development of the branch bank system in order to meet the demands of a rapidly moving frontier of settlement, its adaptation to the requirements of the grain and cattle trade of the west, and the consolidation during later years of the features which tended towards its early success. The development of a stable sytem has been accompanied by failures, particularly marked about the middle of the 19th century, but progress has nevertheless been steady, based on sound principles and adapted as closely as could be to the particular needs of the country.

The branch bank forms perhaps the most distinctive feature of the Canadian system as it exists today, and for a country such as Canada, vast in area and with a small population, the plan has proved a good one. A result of the growth of branch banks has been the partially centralized system that now obtains—centralized as to banks, of which there are now 10[2], rather than as to districts, as in the partially centralized system of the United States.

[1] For details regarding Canadian bank note issue, see page 843. [2] Dec. 31, 1928.

A second peculiarity of the system may be noted—the existence and operation of the Canadian Bankers' Association. Through this body, which was incorporated in 1900 and acts under the authority of the Dominion Treasury Board, co-operation of individual banks is facilitated and encouraged. The association supervises clearing house transactions, appoints curators to supervise the affairs of banks which have suspended business and oversees the printing and issue of notes to its members. Adherence to similar principles and a linking together of the credit of the system result from the co-operation secured through the association.

The elimination of weaker banks and their amalgamation with more stable ones has been a progressive move towards greater efficiency. Co-operation between the banks and the Dominion Government has been made permanent through the medium of periodic returns and the regulation of note issues and reserves.

Apart from the many detailed services rendered to its clients, the Canadian banking system may be said, in addition, to perform three main functions. In brief, they are as follows:—

1. To put into circulation the paper currency which forms the circulating medium for small exchanges.

2. To provide a mechanism of exchange by the issue of bills of exchange, etc.

3. To form a means by which the credit of the banks and their unused deposits may be put to immediate productive use.

Banking Legislation.—Note issue was formerly considered as the chief function of the banks, and banking legislation dealt mainly with such issue. In 1830 the Banking Act was amended so that the total amount of notes of less than $5 in circulation might not at any one time exceed one-fifth of the paid-up capital, that no notes under $1 might be issued and that all issues of less than $5 might be limited or suppressed by the Legislature. In 1841, in the first session of the Canadian Legislature after the Union, the Banking Act imposed a tax of 1 p.c. upon the bank note circulation, together with provisions for the double liability of shareholders. In 1850 a new Act prohibited any bank other than those incorporated by Act of Parliament or Royal Charter from issuing notes. The tax on circulation was abolished, and instead a deposit with the Government of $100,000 in provincial debentures was required; for the first time monthly bank statements were required to be furnished to the Government.

In 1871, the first Dominion Bank Act provided for a minimum capital of $500,000, the restriction of bank note issue to notes of $4 and upwards, the redemption by banks of their own notes at any of their offices, the limitation of dividends until a reasonably large reserve fund had been accumulated, the holding of Dominion notes to the extent of at least one-third of the cash reserve, the prohibition of a bank lending money on its own stock and the forfeiture of the charter of any bank which left any of its liabilities unpaid for 90 days; also, in order that the double liability might be effectively enforced, banks were required to transmit certified lists of shareholders to the Minister of Finance. The charters were granted for ten years only, so as to facilitate the contemplated decennial revisions of the Act.

The first revision of the Bank Act took place in 1881. The noteholder was now recognized as prior creditor and the banks were prohibited from issuing notes under $5, while notes of higher denominations were to be multiples of this sum. Dominion notes were to constitute not less than 40 p.c. of a bank's cash reserve, and banks were upon request to pay in Dominion notes sums not exceeding $50.

At the second revision of the Bank Act (1891), the chief change was the establishment of the bank note circulation redemption fund, founded as a consequence of the losses to which the noteholders of insolvent banks were still subjected through being unable to turn their notes into cash. It was provided that bank notes should bear interest from the day of suspension of the bank until the date when their redemption was undertaken by the liquidator. If this was not done within two months, the Minister of Finance was authorized to redeem them out of the bank note circulation redemption fund. Such expenditure, if not made good out of the assets of the failed bank, was to be financed by contributions from the other banks *pro rata* to circulation.

At the third regular revision of the Bank Act, in 1901, the Canadian Bankers' Association was given authority to appoint an inspector to supervise the bank note circulation and see that no bank issued circulation in excess of its paid-up capital. In 1908, after the financial crisis of 1907, provision was made for emergency circulation during the crop-moving season from October to January, during which banks were allowed to issue excess circulation up to 15 p.c. of their combined paid-up capital and reserve or rest fund, this emergency circulation to be taxed at the rate of 5 p.c. per annum. In 1912 the period during which emergency circulation might be issued was extended to the six months from September to February inclusive.

At the fourth revision, which took place in 1913, the Bank Act was amended by providing for the establishment of central gold reserves in which banks might deposit gold or Dominion notes, issuing additional notes of their own against such deposit. A shareholders' audit was also provided for. As a consequence of the war, the provision for emergency circulation was extended to cover the whole year in 1914, while banks were authorized to make payments in their own notes instead of in gold or Dominion notes.

The fifth revision of 1923 (13-14 Geo. V, c. 32), resulted in numerous important changes. The qualifications of provisional directors were re-defined in sec. 11, while provision was made for keeping records of attendance at directors' meetings and bringing them to the notice of shareholders. Annual and special statements were given further attention and more complete returns were required from the banks, particularly in cases where operations other than banking were carried on (sec. 54). Detailed provisions were added regarding a shareholders' audit of the affairs of the banks (sec. 56), while the personal liability of directors in case of distribution of profits in excess of legal limits was fixed by sec. 59. Regulations regarding loans were amended (sec. 76), and annual returns to the Minister regarding real and immovable property were required (sec. 79). Registration of security for loans was provided for (sec. 88a); monthly and special returns were to be made when called for by the Minister (sec. 112); certain loans were prohibited (sec. 146); and the punishment of directors and other bank officials making false statements of a bank's position was provided for in sec. 153.

Banking Statistics.—In Table 10 is given a historical summary of Canadian banking business since Confederation. In order to afford a clear view of the nature of banking transactions in Canada, bank liabilities have been classified in two main groups, liabilities to shareholders and liabilities to the public, the latter group only being considered when determining the ordinary financial position of any such institution. Assets are divided into four groups, other assets being included in the total. As of interest to students of banking practice, the relative rates of increase of capital and reserve funds may be noted, also the great increase in the proportion of liabilities to the public to total liabilities and the gradually increasing percentage of liabilities to the public to total assets.

10.—Historical Summary showing Development of the Canadian Banking Business, calendar years 1867-1928.

NOTE.—The statistics in this table are yearly averages computed from the twelve monthly returns.

LIABILITIES.

Calendar Years.	Liabilities to Shareholders.		Liabilities to the Public.		
	Capital Paid up.	Rest or Reserve Fund.	Notes in Circulation.	Total on Deposit.[1]	Total Liabilities to the Public.[3]
	$	$	$	$	$
1867 (6 mos.)	30,926,470	-	9,346,081	31,375,316	43,273,969
1868	30,507,447	-	9,350,646	33,653,594	45,144,854
1869	30,782,637	-	9,539,511	40,028,090	50,940,226
1870	33,031,249	-	15,149,031	48,763,205	65,685,870
1871	37,095,340	-	20,914,637	56,287,391	80,250,974
1872	45,190,085	-	25,296,454	61,481,452	90,864,688
1873	54,690,561	-	27,165,878	65,426,042	98,982,668
1874	60,388,340	-	27,904,963	77,113,754	116,412,392
1875	64,619,513	-	23,035,039	74,642,446	104,609,356
1876	66,804,398	-	21,245,935	72,852,686	99,614,014
1877	65,206,009	-	20,704,338	74,166,287	99,810,731
1878	63,682,863	-	20,475,586	70,856,253	95,538,831
1879	62,737,276	-	19,486,103	73,151,425	96,760,113
1880	60,052,117	-	22,529,623	85,303,814	111,838,941
1881	59,534,977	-	28,516,692	94,346,481	127,176,249
1882	59,799,644	-	33,582,080	110,133,124	149,777,214
1883	61,390,118	-	33,283,302	107,648,383	145,938,095
1884	61,579,021	18,149,193	30,449,410	102,398,228	137,493,917
1885	61,711,566	17,879,716	30,720,762	104,014,660	138,762,695
1886	61,662,093	17,817,693	31,030,499	111,449,365	146,954,260
1887	60,860,561	17,873,582	32,478,118	112,656,985	149,704,402
1888	60,345,035	18,529,911	32,205,259	125,136,473	163,990,797
1889	60,229,752	19,766,426	32,207,144	134,650,732	173,029,602
1890	59,974,902	21,127,838	32,834,511	135,548,704	173,207,587
1891	60,700,697	22,821,501	33,061,042	148,396,968	187,332,325
1892	61,626,311	24,511,709	33,788,679	166,668,471	208,062,169
1893	62,009,346	25,837,753	33,811,925	174,776,722	217,195,975
1894	62,063,371	27,041,235	31,166,003	181,743,890	221,066,724
1895	61,800,700	27,273,500	30,807,041	190,916,939	229,794,322
1896	62,043,173	26,526,632	31,456,297	193,616,049	232,338,086
1897	62,027,703	27,087,782	34,350,118	211,788,096	252,660,708
1898	62,571,920	27,627,520	37,873,934	236,161,062	281,076,656
1899	63,726,399	28,958,989	41,513,139	266,504,528	318,624,033
1900	65,154,594	32,372,394	46,574,780	305,140,242	356,394,095
1901	67,035,615	36,249,145	50,601,205	349,573,327[2]	420,003,743
1902	69,869,670	40,212,943	55,412,598	390,370,493[2]	466,963,829
1903	76,453,125	47,761,536	60,244,072	424,167,140[2]	507,527,550
1904	79,234,191	52,082,335	61,769,888	470,265,744[2]	554,014,076
1905	82,655,828	56,474,124	64,025,643	531,243,476[2]	618,678,633
1906	91,035,604	64,002,266	70,638,870	605,968,513[2]	713,790,553
1907	95,953,732	69,806,892	75,784,482	654,839,711[2]	769,026,924
1908	96,147,526	72,041,265	71,401,697	658,367,015[2]	762,077,184
1909	97,329,333	75,887,695	73,943,119	783,298,880[2]	882,598,547
1910	98,787,929	79,970,346	82,120,303	909,964,839[2]	1,019,177,601
1911	103,009,256	88,892,256	89,982,223	980,433,788[2]	1,097,661,393
1912	112,730,943	102,090,476	100,146,541	1,102,910,383[2]	1,240,124,354
1913	116,297,729	109,129,393	105,265,336	1,126,871,523[2]	1,287,372,534
1914	114,759,807	113,130,626	104,600,185	1,144,210,363[2]	1,309,944,006
1915	113,982,741	113,020,310	105,137,092	1,198,340,315[2]	1,353,629,123
1916	113,175,353	112,989,541	126,691,913	1,418,035,429[2]	1,596,905,337
1917	111,637,755	113,560,997	161,029,606	1,643,203,020[2]	1,866,228,236
1918	110,618,504	114,041,500	198,645,254	1,912,395,780[2]	2,184,359,820
1919	115,004,960	121,160,774	218,919,261	2,189,428,885[2]	2,495,582,568
1920	123,617,120	128,756,690	228,800,379	2,438,079,792[2]	2,784,068,698
1921	129,096,339	134,104,030	194,621,710	2,264,586,736[2]	2,556,454,190
1922	125,456,485	129,627,270	166,466,109	2,120,997,030[2]	2,364,822,657
1923	124,373,293	126,441,667	170,420,792	2,107,606,111[2]	2,374,308,376
1924	122,409,504	123,841,666	166,136,765	2,130,621,760[2]	2,438,771,001
1925	118,831,327	123,108,366	165,235,168	2,241,160,611[2]	2,532,832,064
1926	116,638,254	125,441,700	168,885,995	2,277,192,043[2]	2,604,601,786
1927	121,666,774	130,320,897	172,100,763	2,415,132,261[2]	2,758,324,713
1928	122,839,879	134,087,485	176,716,979	2,610,594,865[2]	3,044,742,165

[1] Includes the deposits of Dominion and Provincial Governments.
[2] Includes amounts deposited elsewhere than in Canada, not included in deposits prior to 1901.
[3] Includes other liabilities to the public.

10.—Historical Summary showing Development of the Canadian Banking Business calendar years 1867-1928—concluded.

NOTE.—The statistics in this table are yearly averages computed from the twelve monthly returns.

ASSETS.

Calendar Years.	Specie and Dominion Notes (including Deposits in Central Gold Reserves 1913-1928)	Dominion and Provincial Government Securities.	Municipal Securities in Canada and Public Securities elsewhere than in Canada.	Total Loans.	Total Assets.[1]	Percentage of Liabilities to the Public to Total Assets.
	$	$	$	$	$	p.c.
1867 (6 mos.)....	–	–	–	53,889,703	78,294,670	55·2
1868.....	–	–	–	52,299,050	79,860,976	56·5
1869.....	–	–	–	56,433,953	86,283,693	59·0
1870.....	–	–	–	66,276,961	103,197,103	63·6
1871.....	–	–	–	84,799,841	125,273,631	6[illegible]
1872.....	–	–	–	106,744,665	148,862,445	61·6
1873.....	–	–	–	119,274,317	166,056,595	5[illegible]·4
1874.....	–	–	–	131,680,111	187,921,031	61·5
1875.....	–	–	–	136,029,307	186,255,330	56·[illegible]
1876.....	–	–	–	127,621,577	183,499,801	5[illegible]·5
1877.....	–	–	–	125,681,658	181,019,194	55·[illegible]
1878.....	–	–	–	119,682,659	175,450,274	54·[illegible]
1879.....	–	–	–	113,485,108	173,548,490	5[illegible]·[illegible]
1880.....	–	–	–	102,166,115	184,276,190	66·[illegible]
1881.....	–	–	–	116,953,497	200,613,879	63·[illegible]
1882.....	–	–	–	140,077,194	227,426,835	62·[illegible]
1883.....	–	–	–	143,944,957	228,084,650	63·[illegible]
1884.....	–	–	–	130,490,053	219,998,642	62·[illegible]
1885.....	–	–	–	126,827,792	219,147,080	63·[illegible]
1886.....	–	–	–	132,833,313	228,061,872	64·[illegible]
1887.....	–	–	–	139,753,755	230,393,072	64·[illegible]
1888.....	–	–	–	141,002,373	243,504,164	67·[illegible]
1889.....	–	–	–	149,958,980	253,789,803	68·[illegible]
1890.....	–	–	–	153,301,335	254,546,329	68·[illegible]
1891.....	–	–	–	171,082,677	269,307,032	69·[illegible]
1892.....	17,794,201	–	–	193,455,883	291,635,251	71·[illegible]
1893.....	19,714,648	–	–	206,623.042	302,696,715	71·[illegible]
1894.....	22,371,954	–	–	204,124,939	307,520,020	71·[illegible]
1895.....	22,992,872	–	–	203,730,800	316,536,510	72·[illegible]
1896.....	22,318,627	–	–	213,211,996	320,937,643	72·[illegible]
1897.....	24,178,151	–	–	212,014,635	341,163,505	74·[illegible]
1898.....	25,330,564	–	–	223,806,320	370,583,991	75·[illegible]
1899.....	26,682,970	–	–	251,467,076	412,504,768	77·[illegible]
1900.....	29,047,382	–	–	279,279,761	459,715,065	77·[illegible]
1901.....	32,088,501	11,331,385	13,031,176	388,299,888	531,829,324	78·[illegible]
1902.....	35,478,598	9,804,998	14,487,632	430,662,670	585,761,109	79·[illegible]
1903.....	42,510,574	11,186,607	14,896,472	472,019,689	641,543,226	79
1904.....	50,307,871	10,705,202	15,560,145	509,011,993	695,417,756	79
1905.....	56,590,323	8,833,626	18,820,985	559,814,918	767,490,183	80
1906.....	61,287,581	9,360,614	20,460,670	655,869,879	878,512,076	81
1907.....	70,550,520	9,546,927	21,198,817	709,975,274	945,685,708	81
1908.....	80,654,276	9,522,743	19,788,937	670,170,833	941,290,619	80
1909.....	95,558,461	11,653,798	21,707,363	762,195,546	1,067,007,534	82
1910.....	104,735,626	14,741,621	21,696,987	870,100,890	1,211,452,351	84
1911.....	120,146,690	10,637,580	22,848,170	926,909,616	1,303,131,260	84
1912.....	132,853,405	9,388,968	22,586,119	1,061,843,991	1,470,065,478	84
1913.....	141,872,884	9,995,237	23,183,162	1,111,993,263	1,530,093,671	84
1914.....	165,845,957	11,697,603	22,707,738	1,101,880,924	1,555,676,395	8[illegible]
1915.....	208,438,854	12,814,898	31,553,091	1,066,252,854	1,596,424,643	8[illegible]
1916.....	230,113,831	29,717,007	117,902,686	1,135,866,531	1,839,286,709	85
1917.....	265,389,567	131,078,854	183,341,125	1,219,161,252	2,111,559,555	88
1918.....	351,762,841	162,821,026	252,936,568	1,339,660,669	2,432,331,418	89
1919.....	370,775,723	214,621,625	256,270,715	1,552,971,202	2,754,568,118	90
1920.....	367,165,054	120,356,255	210,826,991	1,935,449,637	3,064,133,843	90
1921.....	335,081,032	166,688,146	156,552,503	1,781,184,115	2,841,782,079	89
1922.....	305,522,425	198,826,031	90,131,491	1,643,643,443	2,638,776,483	89
1923.....	291,999,879	242,292,315	112,642,627	1,606,932,483	2,643,773,986	92
1924.....	266,961,330	314,099,097	135,597,860	1,546,792,080	2,701,427,011	90
1925.....	259,714,043	358,344,887	147,563,292	1,562,017,009	2,789,619,061	90
1926.....	252,754,268	343,595,936	127,765,375	1,682,379,658	2,864,019,213	90
1927.....	252,188,447	324,580,796	133,314,843	1,839,905,275	3,029,680,616	91
1928.....	264,804,251	333,837,004	124,996,823	2,072,403,626	3,323,163,195	91

[1]Includes other assets.

Bank Assets and Liabilities.—Tables 11 and 12 show in detail the assets and liabilities of Canadian chartered banks for the four years 1925 to 1928, the figures being yearly averages of the totals shown in the monthly statements made to the Minister of Finance.

11.—Assets of Chartered Banks in the calendar years 1925-1928.

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each year.

Assets.	1925.	1926.	1927.	1928.
	$	$	$	$
Quick Assets—				
Current gold and subsidiary coin	61,739,609	64,930,816	72,825,694	71,423,881
Dominion notes	140,505,501	124,510,953	114,850,338	123,635,143
Deposit with Minister of Finance for security of note circulation	6,026,917	5,790,572	5,861,646	6,027,466
Deposit in central gold reserves	57,468,933	63,339,499	64,512,415	69,745,227
Notes of other banks	15,055,772	14,954,097	15,846,532	16,507,928
United States and other foreign currencies	27,766,337	24,767,533	22,757,460	21,228,912
Cheques of other banks	121,671,912	107,968,362	126,422,960	148,157,905
Deposits made with and balances due from other banks in Canada	5,101,136	4,727,124	5,193,750	4,965,411
Due from banks and banking correspondents in the United Kingdom	8,583,316	11,520,189	9,790,411	6,874,338
Due from banks and banking correspondents elsewhere than in Canada and the United Kingdom	59,921,935	59,261,609	61,793,595	67,531,596
Total Quick Assets	503,841,368	481,743,754	499,854,201	536,097,807
Other Liquid Assets—				
Dominion Government and Provincial Government securities	358,344,887	343,595,936	324,580,796	333,837,004
Canadian municipal securities, and British, foreign and colonial public securities other than Canadian	147,563,292	127,765,375	133,314,843	124,996,823
Railway and other bonds, debentures and stocks	59,597,468	61,455,745	63,075,762	63,794,381
Call and short (not exceeding thirty days) loans in Canada on stocks, debentures and bonds	120,086,639	140,230,894	185,652,795	253,488,198
Call and short (not exceeding thirty days) loans elsewhere than in Canada	225,461,687	250,080,998	268,536,339	267,352,621
Total Other Liquid Assets	911,053,973	923,128,948	975,160,535	1,043,469,027
Other Assets—				
Other current loans and discounts in Canada	902,845,185	934,022,544	1,024,272,671	1,177,484,482
Other current loans and discounts elsewhere than in Canada	220,098,549	261,415,615	269,337,398	261,943,962
Loans to the Government of Canada	–	–	–	–
Loans to Provincial Governments	18,234,969	18,084,219	15,801,827	29,569,721
Loans to cities, towns, municipalities and school districts	64,410,578	69,008,011	67,603,817	75,072,168
Overdue debts	10,879,402	9,537,377	8,700,427	7,492,476
Real estate other than bank premises	8,620,949	8,300,000	7,705,627	6,736,392
Mortgages on real estate sold by the bank	4,464,047	5,594,014	6,257,770	6,735,847
Bank premises at not more than cost, less amounts (if any) written off	73,085,749	70,551,133	70,499,930	71,573,462
Liabilities of customers under letters of credit as per contra	62,541,017	73,171,325	75,083,687	97,624,647
Other assets not included under the foregoing heads	9,543,275	9,462,273	9,402,726	9,363,204
Total Other Assets	1,374,723,720	1,459,146,511	1,554,665,880	1,743,596,361
Grand Total Assets	**2,789,619,061**	**2,864,019,213**	**3,029,680,616**	**3,323,163,195**

12.—Liabilities of Chartered Banks in the calendar years 1925-1928.

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each ye

Liabilities.	1925.	1926.	1927.	1928.
	$	$	$	$
Liabilities to the Public—				
Notes in circulation	165,235,168	168,885,995	172,100,763	176,71
Balance due to Dominion Government after deducting advances for credits, pay lists, etc.	34,510,533	31,294,876	45,418,748	42,21
Advances under the Finance Act	16,470,833	14,679,166	19,204,167	51,52
Balances due to Provincial Governments	23,823,256	21,615,975	25,573,744	21,84
Deposits by the public payable on demand in Canada	531,180,578	553,322,935	596,069,007	677,46
Deposits by the public payable after notice or on a fixed day in Canada	1,269,542,584	1,340,559,021	1,399,062,201	1,496,60
Deposits elsewhere than in Canada	362,103,660	330,399,153	349,008,560	372,45
Deposits made by and balances due to other banks in Canada	12,173,493	11,508,311	12,487,069	15,49
Due to banks and banking correspondents in the United Kingdom	7,438,125	6,444,964	6,723,874	13,44
Due to banks and banking correspondents elsewhere than in Canada and the United Kingdom	33,208,477	38,065,329	44,760,541	63,03
Bills payable	11,236,765	11,072,863	8,720,888	12,04
Acceptances under letters of credit	62,541,017	73,171,325	75,083,687	97,62
Liabilities not included under foregoing heads	3,367,575	3,581,873	4,111,464	4,24
Total Liabilities to the Public	**2,532,832,064**	**2,604,601,786**	**2,758,324,713**	**3,044,74**
Liabilities to Shareholders—				
Capital paid up	118,831,327	116,638,254	121,666,774	122,83
Amount of rest or reserve fund	123,108,366	125,441,700	130,320,897	134,08
Total Liabilities to Shareholders	**241,939,693**	**242,079,121**	**251,987,671**	**256,92**
Grand Total Liabilities	**2,774,771,757**	**2,846,680,907**	**3,010,312,384**	**3,301,66**

In Tables 13 and 14 will be found statistics showing the position of individual chartered banks on Dec. 31, 1928.

13.—Principal and Total Assets of each of the Chartered Banks of Canada, Dec. 31, 1928.

Chartered Banks.	Current Gold and Subsidiary Coin.	Dominion Notes.	Deposit in Central Gold Reserves.	Due from other Banks.	Securiti
	$	$	$	$	$
Bank of Montreal	31,884,676	54,705,391	24,000,000	66,341,648	127,68
Bank of Nova Scotia	9,227,684	17,821,895	6,500,000	21,242,227	49,89
Bank of Toronto	377,559	4,949,285	3,880,866	11,981,884	20,23
Banque Provinciale du Canada	225,479	277,257	–	5,792,117	12,17
Canadian Bank of Commerce	10,299,347	21,483,774	15,000,000	52,388,081	92,41
Royal Bank of Canada	21,639,527	18,160,310	16,400,000	69,879,545	136,49
Dominion Bank	1,460,601	10,534,537	2,300,000	17,732,979	22,70
Banque Canadienne Nationale	914,523	1,253,323	7,200,000	8,592,501	37,25
Imperial Bank of Canada	968,009	4,618,859	3,250,000	14,069,259	24,45
Weyburn Security Bank	25,317	58,947	200,000	2,235,762	1,24
Total	**77,022,722**	**133,843,578**	**78,730,866**	**272,255,994**	**524,56**

13.—Principal and Total Assets of each of the Chartered Banks of Canada, Dec. 31, 1928—concluded.

Chartered Banks.	Loans and Discounts.			Total Assets.[1]
	Call Loans in Canada.	Current Loans in Canada.	Call and Current Loans outside of Canada.	
	$	$	$	$
Bank of Montreal	39,848,364	325,456,644	189,849,611	896,569,881
Bank of Nova Scotia	34,462,410	89,942,697	33,210,357	279,813,234
Bank of Toronto	11,524,633	71,003,527	3,600,000	133,620,318
Banque Provinciale du Canada	13,133,156	20,013,701	–	55,313,125
Canadian Bank of Commerce	59,528,303	308,765,672	119,510,560	727,969,231
Royal Bank of Canada	64,751,752	298,487,798	197,753,470	917,166,975
Dominion Bank	14,439,122	62,667,814	9,252,122	152,805,147
Banque Canadienne Nationale	15,620,808	72,265,448	10,485	151,975,270
Imperial Bank of Canada	12,491,338	75,811,272	2,000,000	147,190,675
Weyburn Security Bank	–	2,732,517	4,500	7,276,858
Total	**265,799,886**	**1,327,147,090**	**555,191,105**	**3,469,700,694**

[1]Includes other assets.

14.—Principal and Total Liabilities of each of the Chartered Banks of Canada, Dec. 31, 1928.

Chartered Banks.	Capital (paid up).	Reserves.	Notes in Circulation.	Due to Dominion and to Provincial Governments.
	$	$	$	$
Bank of Montreal	29,916,700	30,916,700	46,722,136	32,544,668
Bank of Nova Scotia	10,000,000	20,000,000	16,098,054	3,781,132
Bank of Toronto	5,902,625	7,902,625	8,972,073	713,790
Banque Provinciale du Canada	4,000,000	1,500,000	4,399,126	257,652
Canadian Bank of Commerce	24,823,400	24,823,400	34,848,050	7,998,985
Royal Bank of Canada	30,000,000	30,000,000	42,693,953	9,368,176
Dominion Bank	6,000,000	8,000,000	8,207,237	1,977,356
Banque Canadienne Nationale	5,500,000	5,500,000	13,046,069	2,275,995
Imperial Bank of Canada	7,000,000	8,000,000	10,373,900	3,772,668
Weyburn Security Bank	524,560	250,000	726,087	220,806
Total	**123,667,285**	**136,892,725**	**186,086,685**	**62,911,228**

Chartered Banks.	Deposits.			Due to Other Banks.	Total Liabilities.[2]
	Demand in Canada.	Notice in Canada.	Outside of Canada.		
	$	$	$	$	$
Bank of Montreal	176,248,243	422,152,795	96,583,871	27,296,811	893,004,230
Bank of Nova Scotia	41,162,501	131,487,397	36,056,096	5,176,200	278,588,340
Bank of Toronto	36,044,148	65,730,855	–	3,660,963	132,188,824
Banque Provinciale du Canada	7,163,229	35,957,046	–	32,150	54,877,050
Canadian Bank of Commerce	174,150,826	306,701,272	48,210,812	59,804,961	726,481,591
Royal Bank of Canada	180,584,767	318,865,745	195,196,782	27,111,319	914,099,482
Dominion Bank	37,285,017	71,002,115	5,076,098	6,977,689	152,532,860
Banque Canadienne Nationale	24,027,475	91,298,303	1,453,698	568,470	150,975,404
Imperial Bank of Canada	36,440,591	74,124,004	–	4,304,638	145,756,330
Weyburn Security Bank	1,916,629	2,935,494	–	46,777	7,222,935
Total	**715,023,426**	**1,520,285,026**	**382,577,357**	**134,979,948**	**3,455,727,046**

[2]Includes other liabilities.

Deposits, Loans and Discounts.—As an index of the course of banking business, of the nature of many transactions undertaken and of the general security of bank assets, loans and discounts are of great value. They illustrate clearly the channels into which a large proportion of the potential earning power of the banks is directed, and, by providing a comparison between investments made in lending operations inside and outside of Canada, afford essential information regarding the conduct by a bank of one of its most important activities.

Bank deposits, the demand deposits being to a large extent the product of lending operations, by which credit is advanced on security, followed by the deposit of the proceeds of a loan, are also of considerable importance, and, on account of their derivation, are one of the most valuable records of the volume of business done at any time. Actual deposits of cash (mainly deposits payable after notice or on a fixed day) are, of course, included with the amounts deposited after the granting of loans.

Tables **15** and **16**, following, give the deposits and loans of Canadian chartered banks for the years 1924 to 1928.

15.—Deposits in Chartered Banks in Canada and elsewhere, for the calendar years 1924-1928.

NOTE.—The statistics in this table are averages computed from monthly returns in each year.

Items.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$
Deposits by the public in Canada—					
Payable on demand	511,218,736	531,180,578	553,322,935	596,069,007	677,467,295
Payable after notice or on a fixed day	1,198,246,414	1,269,542,584	1,340,559,021	1,399,062,201	1,496,608,451
Deposits elsewhere than in Canada	332,533,491	362,103,660	330,399,153	349,008,560	372,452,532
Balances due to Dominion and Provincial Governments	88,623,119	58,333,789	52,910,934	70,992,492	64,066,587
Total Deposits	**2,130,621,760**	**2,221,160,611**	**2,277,192,043**	**2,415,132,260**	**2,610,594,865**

16.—Loans of Chartered Banks in Canada and elsewhere, for the calendar years 1924-1928.

NOTE.—The statistics in this table are averages computed from monthly returns in each year.

Items.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$
Call and short loans on stocks and bonds in Canada	109,035,615	120,086,639	140,230,899	185,652,795	253,488,198
Call and short loans elsewhere than in Canada	181,705,220	225,461,687	250,080,998	268,536,339	267,352,621
Current loans in Canada[1]	1,048,118,113	957,255,763	1,003,030,550	1,091,876,489	1,252,556,650
Current loans elsewhere than in Canada	181,651,237	220,098,549	261,415,615	269,337,398	261,943,962
Loans to governments	13,467,969	18,234,969	18,084,219	15,801,827	29,569,721
Overdue debts	12,813,926	10,879,402	9,537,377	8,700,427	7,492,476
Total Loans	**1,546,792,080**	**1,562,017,009**	**1,682,379,658**	**1,839,905,275**	**2,072,403,628**

[1] Includes loans to cities, towns, municipalities and school districts.

Bank Reserves.—The Bank Act contains no specific provisions as to the amount of gold to be held against either note circulation or general liabilities of a bank. It requires, however, that 40 p.c. of whatever cash reserves a bank finds it expedient to carry shall be in Dominion notes. A second provision instructs the Minister of Finance to arrange for the delivery of Dominion notes to any bank in exchange for specie. Thus the gold reserve against Dominion notes, to the extent that the notes are held by the banks, is reserve against banking operations, the Dominion Government being the custodian of the gold for the banks. The other cash element in bank reserves is specie in hand. In addition to this cash on hand, Canadian banks carry three other kinds of assets which are regarded as reserves, being funds more or less immediately available for the liquidation of liabilities. These are:—(1) cash balances in banks outside of Canada; (2) call and short loans in New York (the favourite call loan market); and (3) readily marketable securities. These are shown, together with net liabilities, in Table **17.** In Table **18** the ratio to net liabilities of each element of the reserve is shown.

17.—Bank Reserves, with Liabilities, 1901-1928.

NOTE.—The statistics in this table are averages computed from monthly returns in each year. Figures for 1892–1900 were given on p. 872 of the 1927–28 Year Book.

Years.	Specie and Dominion Notes.	Cash Due from			Call and short loans elsewhere than in Canada.
		Banks in the United Kingdom.	Banks elsewhere than in Canada and United Kingdom.	Total from outside Banks	
	$	$	$	$	$
1901	32,088,501	5,598,939	12,811,524	18,410,463	40,020,238
1902	35,478,598	6,598,159	13,519,799	20,117,958	46,162,659
1903	42,510,574	5,638,954	14,192,232	19,831,186	38,025,662
1904	50,307,871	7,523,615	16,817,357	24,340,972	41,212,007
1905	56,590,323	9,960,560	19,201,939	29,162,499	51,452,955
1906	61,287,581	8,877,979	16,801,119	25,679,098	59,363,639
1907	70,550,520	6,027,157	15,363,728	21,390,885	52,907,513
1908	80,654,276	9,828,186	30,822,761	40,650,947	60,764,075
1909	95,558,461	10,311,864	31,779,144	42,091,008	119,728,263
1910	104,735,696	18,892,833	28,301,602	47,194,435	112,777,530
1911	120,146,690	21,122,092	29,695,985	50,818,077	91,097,704
1912	132,853,405	21,338,926	28,894,103	50,233,029	105,718,070
1913	135,267,623	13,329,642	28,238,329	41,567,971	98,602,615
1914	159,775,124	12,230,533	36,932,958	49,163,491	112,438,696
1915	200,113,021	20,824,559	43,781,939	64,606,498	118,896,692
1916	207,797,164	24,025,192	72,923,228	96,948,420	164,786,760
1917	210,475,400	17,885,648	53,021,952	70,907,600	157,430,643
1918	256,656,174	10,973,606	47,419,961	58,393,567	162,233,308
1919	257,429,889	12,359,426	50,904,693	63,264,119	163,227,204
1920	259,462,332	17,669,923	62,100,182	79,770,105	200,098,050
1921	255,474,332	12,857,830	60,885,266	73,745,346	172,137,325
1922	251,169,892	10,309,844	87,972,048	98,279,642	178,457,564
1923	234,501,513	8,090,470	54,358,289	62,448,759	198,047,516
1924	235,743,196	7,819,605	66,701,920	74,521,525	181,705,220
1925	230,011,447	8,583,316	59,921,935	68,505,251	225,461,687
1926	214,182,302	11,520,189	59,261,609	70,781,798	250,080,998
1927	210,433,492	9,790,411	61,793,595	71,584,006	268,536,339
1928	216,287,938	6,874,338	67,531,596	74,405,934	267,352,621

17.—Bank Reserves with Liabilities, 1901-1928—concluded.

NOTE.—The statistics in this table are averages computed from monthly returns in each year. Figures for 1892-1900 will be found at p. 873 of the 1927-28 Year Book.

Years.	Securities.				Total Reserves.	Total Net Liabilities.[1]
	Dominion and Provincial Government Securities.	Canadian municipal, British, Foreign and Colonial public securities.	Railway and other Bonds.	Total.		
	$	$	$	$	$	$
1901	11,331,385	13,031,176	30,440,258	54,802,819	145,322,021	405,915,468
1902	9,804,998	14,487,633	34,859,390	59,152,021	160,911,236	451,052,607
1903	11,186,607	14,896,472	37,800,893	63,883,972	164,251,394	489,439,303
1904	10,705,202	15,560,146	38,779,477	65,044,825	180,905,675	534,147,781
1905	8,833,627	18,820,985	39,974,520	67,629,132	204,834,909	595,027,264
1906	9,360,614	20,460,625	41,125,898	70,947,137	217,277,455	684,185,650
1907	9,546,760	21,198,817	41,239,589	71,985,166	216,834,084	737,505,039
1908	9,522,743	19,788,937	42,651,006	71,962,686	254,031,984	726,443,676
1909	11,653,798	21,707,363	50,783,614	84,144,775	341,522,507	844,098,072
1910	14,741,621	21,696,987	56,194,734	92,633,342	357,341,003	974,731,187
1911	10,637,580	22,848,170	60,909,240	94,394,990	356,457,461	1,044,712,367
1912	9,388,968	22,586,119	64,080,763	96,055,850	384,860,354	1,178,577,787
1913	9,995,237	23,183,161	70,713,075	103,891,473	379,329,682	1,222,752,292
1914	11,697,603	22,707,738	68,636,267	103,041,608	424,418,919	1,251,372,615
1915	12,814,898	31,553,091	74,020,538	118,388,527	502,004,738	1,298,018,989
1916	29,717,007	117,902,686	68,386,482	216,006,175	685,538,519	1,520,438,686
1917	131,078,854	183,341,125	58,958,908	373,378,887	812,192,530	1,771,264,882
1918	162,821,026	252,936,568	56,103,418	471,861,012	949,144,061	2,071,307,749
1919	214,621,625	256,270,715	54,429,301	525,321,641	1,009,242,853	2,363,044,215
1920	120,356,255	210,826,991	48,031,228	379,214,474	918,544,961	2,608,151,194
1921	166,688,146	156,552,503	45,728,878	368,969,527	870,324,280	2,393,459,361
1922	198,826,031	90,131,491	43,208,758	332,166,280	860,073,353	2,219,372,799
1923	242,292,315	112,642,627	46,857,264	401,792,206	896,789,994	2,222,479,569
1924	314,099,097	135,597,860	52,864,890	502,561,847	994,531,788	2,314,701,740
1925	358,344,887	147,563,292	59,597,468	565,505,647	1,089,484,032	2,396,104,380
1926	343,595,936	127,765,375	61,455,745	532,817,056	1,067,862,154	2,481,678,160
1927	324,580,796	133,314,843	63,075,762	520,971,402	1,071,525,239	2,616,056,053
1928	333,837,004	124,996,823	62,794,381	522,628,208	1,080,674,701	2,880,242,999

[1]Net liabilities are obtained by deducting from total liabilities to the public, as shown in Table 10, the items "notes of other banks", "cheques on other banks", "loans to other banks in Canada, secured, including bills rediscounted", which represent indebtedness within the system and are counterbalanced by credits within the system.

18.—Ratio of Bank Reserves to Net Liabilities, 1901-1928.[1]

NOTE.—The statistics in this table are based upon the averages of the monthly returns in each year. Figures for 1892–1900 will be found at p. 874 of the 1927–28 Year Book.

Years.	Cash on hand.	Cash due from banks outside of Canada.	Call and short loans elsewhere than in Canada.	Securities.	Total Reserves.
	p.c.	p.c.	p.c.	p.c.	p.c.
1901	8·0	4·5	10·0	13·5	36·0
1902	7·9	4·4	10·2	13·1	35·6
1903	8·9	4·0	7·7	13·0	33·6
1904	9·4	4·5	7·7	12·1	33·7
1905	9·5	4·9	8·6	11·3	34·3
1906	8·9	3·7	8·7	10·4	31·7
1907	9·5	2·9	7·2	9·7	29·3
1908	11·1	5·5	8·3	9·9	34·8
1909	11·3	5·0	14·2	9·9	40·4
1910	10·7	4·8	11·5	9·5	36·5
1911	11·5	4·8	8·7	9·0	34·0
1912	11·3	4·3	8·9	8·1	32·5
1913	11·1	3·4	8·1	8·5	31·1
1914	12·8	3·9	9·0	8·2	33·9
1915	15·4	5·0	9·2	9·1	38·7
1916	13·7	6·4	10·8	14·2	45·1
1917	11·9	4·0	8·9	21·1	45·9
1918	12·4	2·8	7·8	22·8	45·8
1919	10·9	2·7	6·9	22·2	42·7
1920	9·9	3·1	7·7	14·5	35·2
1921	10·7	3·1	7·2	15·4	36·4
1922	11·3	4·4	8·0	15·0	38·7
1923	10·6	2·8	8·9	18·1	40·4
1924	10·2	3·2	7·9	21·7	43·0
1925	9·6	2·9	9·4	23·6	45·5
1926	8·6	2·8	10·1	21·5	43·0
1927	8·0	2·7	10·3	19·9	40·9
1928	7·5	2·6	9·3	18·1	37·5

[1]See Table 17 for actual amounts.

Chartered Banks in Canada.—During the period from 1881 to 1901, the number of chartered banks doing business in Canada under the Bank Act remained almost the same, 36 in 1881 and 1891 and 34 in 1901, but during the present century there has been in banking, as in industry, an era of amalgamations, the number of banks having dropped to 25 in 1913 and to 10 in December, 1928. That this has been far from involving a curtailment of banking facilities is seen in Table **10**, which shows the development of the banking business since 1867, and in Table **19**, which compares the number of branch banks existing in Canada at different periods, showing a growth from 123 at Confederation to 3,966 at Dec. 31, 1928, besides 187 branches in other countries. Table **20** gives the number of branches of the various banks, by provinces, as at Dec. 31, 1928, while Table **21** contains the statistics of branches of Canadian banks doing business outside of Canada, an extension of Canadian banking (more especially to Newfoundland and the West Indies) which has proceeded very rapidly in recent years.

19.—Number of Branches of Chartered Banks in Canada, by Provinces, 1868, 1902, 1905, 1916, 1924-1928.

Provinces.	1868.	1902.	1905.	1916.[1]	1924.[1]	1925.[1]	1926.[1]	1927.[1]	1928.[1]
Prince Edward Island	–	9	10	17	33	31	28	28	28
Nova Scotia	5	89	101	111	141	140	134	138	139
New Brunswick	4	35	49	82	124	108	101	103	102
Quebec	12	137	196	784	1,138	1,100	1,072	1,105	1,155
Ontario	100	349	549	1,154	1,401	1,338	1,326	1,357	1,383
Manitoba	–	52	95	200	249	233	224	227	231
Saskatchewan	–	30	87	413	452	426	427	436	455
Alberta				247	299	274	269	280	293
British Columbia	2	46	55	187	200	187	186	193	196
Yukon	–	–	3	3	3	3	3	3	4
Total	**123**	**747**	**1,145**	**3,198**	**4,040**	**3,840**	**3,770**	**3,870**	**3,966**

[1]Includes subagencies for receiving deposits for the banks employing them.

20.—Number and Location of Branches of Canadian Chartered Banks, as at Dec. 31, 1928.

Chartered Banks.	P.E. Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.	Manitoba.
Bank of Montreal	1	14	14	126	244	32
Bank of Nova Scotia	9	42	38	22	140	1
Bank of Toronto	–	–	–	15	105	13
Banque Provinciale du Canada	4	–	20	279	27	–
Canadian Bank of Commerce	7	21	7	90	355	53
Royal Bank of Canada	7	62	22	82	276	71
Dominion Bank	–	–	1	8	96	11
Banque Canadienne Nationale	–	–	–	509	28	11
Imperial Bank of Canada	–	–	–	4	112	–
Weyburn Security Bank	–	–	–	–	–	–
Total	**28**	**139**	**102**	**1,135**	**1,383**	**233**

Chartered Banks.	Saskatchewan.	Alberta.	British Columbia.	Yukon.	Other Countries.	Total.
Bank of Montreal	67	69	46	2	19	64
Bank of Nova Scotia	25	10	6	–	41	34
Bank of Toronto	40	13	7	–	–	13
Banque Provinciale du Canada	–	–	–	–	–	8
Canadian Bank of Commerce	109	81	67	2	14	89
Royal Bank of Canada	142	81	53	–	110	90
Dominion Bank	5	6	2	–	2	13
Banque Canadienne Nationale	8	7	–	–	1	56
Imperial Bank of Canada	29	26	15	–	–	19
Weyburn Security Bank	30	–	–	–	–	7
Total	**455**	**293**	**196**	**4**	**187**	**4,13**

21.—Number of Branches of Canadian Chartered Banks in other Countries, with their Location, Dec. 31, 1928.

Banks and Location.	Branches.	Banks and Location.	Branches.
The Bank of Montreal—		The Royal Bank of Canada—	
Newfoundland	5	Newfoundland	5
England	2	England	2
France	1	France	1
United States	3	United States	1
Mexico	7	West Indies	73
		Central and South America	27
The Bank of Nova Scotia—		Spain	1
Newfoundland	12		
England	1		
United States	3	The Dominion Bank—	
West Indies	24	England	1
		United States	1
The Canadian Bank of Commerce—			
Newfoundland	2		
England	1	Banque Canadienne Nationale—	
United States	4	France	1
Mexico	1		
West Indies	4		
South America	1		
St. Pierre et Miquelon	1		

Clearing House Transactions.—The appended table shows for the years 1924 to 1928 the total volume of clearings in the clearing houses of Canada. These figures, it may be added, represent not only actual city clearings but exchanges between numerous rural branches of the banks in each district.

22.—Amount of Exchanges of the Clearing Houses of Chartered Banks in Canada for the calendar years 1924-1928.

Clearing Houses.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$
Brandon	29,796,999	31,805,295	31,005,956	31,888,238	38,724,824
Brantford	46,050,667	50,714,484	55,117,564	63,699,310	72,529,308
Calgary	343,415,332	355,320,700	393,910,637	436,380,347	666,517,374
Chatham	29,916,684	30,170,495	35,577,758	40,639,402	43,568,049
Edmonton	220,329,390	239,350,281	259,611,167	286,632,841	351,325,045
Fort William	48,122,905	43,110,272	48,102,058	51,979,079	59,588,926
Halifax	148,486,237	153,908,814	150,800,486	160,582,907	185,678,418
Hamilton	255,781,872	250,224,656	268,402,609	296,401,045	337,852,407
Kingston	35,733,539	36,429,859	38,293,485	43,841,462	46,174,085
Kitchener	48,875,860	49,231,111	51,757,833	60,999,516	66,254,228
Lethbridge	27,718,555	28,410,029	29,565,725	31,865,310	40,774,009
London	140,877,832	136,640,609	142,856,910	167,784,864	180,871,281
Medicine Hat	16,463,676	15,359,364	15,462,821	18,017,757	26,616,621
Moncton	41,537,923	41,258,871	44,207,861	45,999,129	49,385,815
Montreal	5,353,492,000	5,143,250,794	5,646,347,421	6,771,872,658	8,072,843,473
Moose Jaw	58,471,697	61,186,405	64,190,200	69,893,412	73,000,603
New Westminster	30,816,486	33,049,660	39,253,105	41,565,489	44,775,067
Ottawa	332,140,501	328,862,264	338,607,358	374,560,769	431,183,370
Peterborough	40,621,725	40,564,340	41,685,282	46,265,622	48,837,555
Prince Albert	16,572,708	17,347,717	20,193,963	21,205,563	25,136,852
Quebec	291,476,519	296,868,697	319,659,403	349,324,254	361,754,089
Regina	179,302,867	225,429,504	241,153,813	259,731,291	312,089,797
Saint John	133,734,811	131,306,092	136,266,527	134,755,457	150,715,381
Sarnia	–	–	32,039,147	35,507,682	37,865,490
Saskatoon	83,355,957	91,330,856	103,237,691	111,929,059	138,687,497
Sherbrooke	41,432,014	42,169,656	44,259,486	47,348,680	50,673,178
Toronto	5,255,433,826	4,914,651,845	5,196,428,183	6,484,986,731	7,674,864,018
Vancouver	803,051,359	807,197,610	888,704,118	924,784,859	1,109,375,640
Victoria	108,146,581	101,269,481	110,885,953	119,552,545	134,095,845
Windsor	164,187,469	172,716,001	219,129,742	243,913,678	280,032,888
Winnipeg	2,682,695,199	2,892,376,615	2,708,415,756	2,794,528,267	3,443,151,986
Total	**17,008,039,190**	**16,761,512,377**	**17,715,099,018**	**20,568,437,223**	**24,554,938,119**

Bank clearings, though generally regarded as a leading barometer of business conditions, are defective in that they record only inter-bank transactions—transactions through which one bank becomes either the debtor or the creditor of another. They do not record the numerous transactions in which the transfer of value is made within a single bank, as, for example, where the purchaser and the seller of values that are paid for by cheque carry their accounts in the same bank. As the number of separate banks has in recent years been steadily diminishing through amalgamations, there being only 10 in December, 1928, as compared with 18 in 1923, inter-bank transactions are bearing a steadily decreasing proportion to the total of business transacted, a fact which goes far to explain the smallness of the increase in bank clearings from 1924 to 1928, as shown in Table **22.**

Bank Debits.—Since bank clearings have ceased to be a satisfactory measure of general business, the Bureau of Statistics in 1923 took up with the Canadian Bankers' Association the advisability of securing a record of bank debits, *i.e.*, of all cheques charged against accounts at any bank. The Bankers' Association agreed to secure from January, 1924, the monthly aggregate figures of the amount of cheques charged to accounts at all banking offices situated in the clearing house cities of Canada, and the figures of cheques charged to accounts (bank debits) are given for the first five years for which the record was compiled in Table **23.** The Weyburn Security Bank, operating in southern Saskatchewan, has voluntarily added a record of all cheques charged to accounts at any of its branches.

It will be noted, as establishing the need of the newer record, that bank debits for 1928 show an increase of 60 p.c. over those of 1924, while bank clearings in the later year show an increase of only 44 p.c. The bank debits are a comparable record for the five years; the bank clearings, owing to the reduction in the number of banks, are not a comparable record.

23.—Bank Debits at the Clearing House Cities of Canada, by Individual Cities, calendar years 1924-1928.

Clearing House Centres.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$
Maritime Provinces—					
Halifax	249,104,107	291,519,137	310,156,211	324,547,787	404,665,405
Moncton	73,359,527	72,670,817	80,079,852	84,077,248	91,313,729
Saint John	262,397,740	208,309,576	214,503,609	219,119,014	249,488,661
Total	584,861,374	572,499,530	604,739,672	627,744,049	745,467,795
Quebec—					
Montreal	7,502,004,244	7,765,597,874	9,133,357,705	11,779,679,473	13,962,318,025
Quebec	533,783,980	606,288,225	653,974,690	745,180,824	794,833,137
Sherbrooke	97,202,878	103,338,392	122,139,414	119,046,018	155,506,587
Total	8,132,991,102	8,475,224,491	9,909,471,809	12,643,906,315	14,912,657,749
Ontario—					
Brantford	85,522,249	97,420,194	104,344,131	120,130,422	143,943,039
Chatham	83,843,306	72,552,158	78,113,391	92,586,934	101,383,642
Fort William	94,542,523	80,641,924	93,312,892	98,596,600	108,176,187
Hamilton	551,817,813	561,986,629	625,859,573	677,172,777	814,420,963
Kingston	63,623,168	60,684,605	64,839,958	74,495,420	79,595,640
Kitchener	95,723,382	101,458,597	107,791,171	123,259,396	142,995,237
London	265,782,161	258,399,664	294,440,263	355,621,944	404,700,773
Ottawa	1,957,362,315	2,019,304,868	1,868,014,198	1,922,946,801	2,089,409,008
Peterborough	69,005,106	74,622,879	76,225,782	84,632,905	92,760,882
Sarnia	–	–	96,815,933	103,209,342	120,923,729
Toronto	7,659,055,119	7,587,940,228	8,209,525,043	10,536,876,258	12,673,220,316
Windsor	283,117,899	321,031,895	379,061,316	452,282,232	541,319,835
Total	11,209,395,041	11,236,043,641	11,998,343,651	14,641,811,031	17,312,849,249

23.—Bank Debits at the Clearing House Cities of Canada, by Individual Cities, calendar years 1924-1928—concluded.

Clearing House Centres.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$
Prairie Provinces—					
Brandon	48,518,157	51,160,658	50,324,105	51,370,740	61,324,007
Calgary	638,161,968	622,214,679	717,869,597	734,173,249	1,096,733,543
Edmonton	343,500,746	368,310,143	398,020,461	437,356,863	546,841,716
Lethbridge	58,854,511	58,423,735	67,394,727	64,105,290	89,863,419
Medicine Hat	51,545,072	41,053,260	35,076,705	40,757,596	56,953,944
Moose Jaw	97,032,711	105,510,363	110,068,208	109,425,240	119,937,245
Prince Albert	24,529,364	24,528,983	28,605,444	31,358,667	35,799,271
Regina	299,873,256	376,635,145	404,126,726	441,328,792	552,941,674
Saskatoon	117,115,462	126,233,796	146,930,427	160,732,823	203,264,797
Winnipeg	3,792,888,543	4,182,585,261	3,877,247,424	4,004,980,180	5,187,680,266
Branches of the Weyburn Security Bank	33,043,169	43,391,860	49,982,244	51,396,596	55,372,926
Total	5,505,062,959	6,000,047,883	5,885,646,068	6,126,986,036	8,006,712,808
British Columbia—					
New Westminster	59,364,225	64,256,015	77,071,830	82,663,727	92,705,331
Vancouver	1,409,852,038	1,475,010,772	1,553,256,186	1,595,939,598	1,984,485,771
Victoria	255,947,472	302,978,424	329,504,802	374,452,342	422,080,397
Total	1,725,163,735	1,842,245,211	1,959,832,818	2,053,055,667	2,499,271,499
Grand Total for Canada	**27,157,474,211**	**28,126,060,756**	**30,358,934,018**	**36,093,503,098**	**43,476,959,100**

Bank Amalgamations and Insolvencies.—Two tables are appended which may be of interest to students of Canadian banking history. The first, showing bank insolvencies since 1867, gives the capital paid up, reserve, assets and liabilities of insolvent banks, and shows also the payments p.c. to noteholders and depositors. In the majority of cases, both these classes of creditors have received payment in full. The table of bank absorptions gives the dates of absorption of the 35 banks which were incorporated with other institutions between 1867 and 1928.

24.—Canadian Bank Insolvencies since 1867.

Name.	Date of Suspension.	Paid-up Capital.	Reserve Fund.	Liabilities.	Assets.	Paid to Noteholders.	Paid to Depositors.
		$	$	$	$	p.c.	p.c.
Commercial Bank of N.B.	– 1868	600,000	–	671,420	1,222,454	100	100
Bank of Acadia[2]	April, 1873	100,000	–	106,914	213,346	–	–
Metropolitan Bank	Oct. 1876	800,170	–	293,379	779,225	100	100
Mechanics' Bank	May, 1879	194,794	–	547,238	721,155	57½	57½
Bank of Liverpool	Oct., 1879	370,548	–	136,480	207,877	100	96⁸/₁₇
Consolidated Bank of Canada	Aug., 1879	2,080,920	–	1,794,249	3,077,202	100	100
Stadacona Bank	July, 1879	991,890	–	341,500	1,355,675	100	100
Bank of Prince Ed. Island	Nov. 28, 1881	120,000	45,000	1,108,000	953,244	59½	59½
Exchange Bank of Canada	Sept., 1883	500,000	300,000	2,868,884	3,779,493	100	66⅔
Maritime Bank of Dom. of Canada	Mar., 1887	321,900	60,000	1,409,482	1,825,993	100	10⅔
Pictou Bank	Sept., 1887	200,000	–	74,364	277,017	100	100
Bank of London in Canada	Aug., 1887	241,101	50,000	1,031,280	1,310,675	100	100
Central Bank of Canada	Nov., 1887	500,000	45,000	2,631,378	3,231,518	100	99⅔
Federal Bank	Jan., 1888	1,250,000	150,000	3,449,499	4,869,113	100	100
Commercial Bank of Manitoba	June 30, 1893	552,650	50,000	1,341,251	1,951,151	100	100
Banque du Peuple	July 15, 1895	1,200,000	600,000	7,761,209	9,533,537	100	75½
Banque Ville Marie	July 25, 1899	479,620	10,000	1,766,841	2,267,516	100	17½
Bank of Yarmouth	Mar. 6, 1905	300,000	35,000	388,660	723,660	100	100
Ontario Bank	Oct. 13, 1906	1,500,000	700,000	15,272,271	15,920,307	100	100
Sovereign Bank of Canada	Jan. 18, 1908	3,000,000	–	16,174,408	19,218,746	100	100
Banque de St. Jean	April 28, 1908	316,386	10,000	560,781	326,118	100	30½
Banque de St. Hyacinthe	Jan. 24, 1908	331,235	75,000	1,172,630	1,576,443	100	100
St. Stephen's Bank	Mar. 10, 1910	200,000	55,000	549,830	818,271	100	100
Farmers Bank	Dec. 19, 1910	567,579	–	1,997,041	2,616,683	100	[1]
Bank of Vancouver	Dec. 14, 1914	445,188	–	912,137	1,532,786	100	[1]
Home Bank of Canada	Aug. 17, 1923	1,960,591	550,000	24,889,049	27,434,709	100	[1]

[1]Liquidation incomplete. [2]This bank was only in existence for 3 months and 26 days. Some of its notes were redeemed on its re-opening for a few days. The Dominion Government received 25 cents on the dollar on several thousand dollars worth of the notes which it held.

25.—Bank Absorptions in Canada since 1867[1].

Purchasing Bank.	Bank Absorbed.	Date.[2]
Bank of Montreal	Exchange Bank, Yarmouth, N.S.	Aug. 13, 1903
	People's Bank of Hamilton, N.S.	June 27, 1905
	Ontario Bank	Oct. 13, 1906
	People's Bank of New Brunwsick	April 15, 1907
	Bank of British North America	Oct. 12, 1918
	Merchants Bank	Mar. 20, 1922
	Molsons Bank	Jan. 20, 1925
Canadian Bank of Commerce	Gore Bank	May 19, 1870
	Bank of British Columbia	Dec. 31, 1900
	Halifax Banking Co.	May 30, 1903
	Merchants Bank of P.E.I.	May 31, 1909
	Eastern Townships Bank	Feb. 29, 1912
	Bank of Hamilton	Dec. 31, 1923
	Standard Bank of Canada	Nov. 3, 1928
Bank of Nova Scotia	Union Bank of P.E.I.	Oct. 1, 1888
	Bank of New Brunswick	Feb. 15, 1913
	The Metropolitan Bank	Nov. 14, 1914
	The Bank of Ottawa	April 30, 1919
Royal Bank of Canada	Union Bank of Halifax	Nov. 1, 1910
	Traders Bank of Canada	Sept. 3, 1912
	Quebec Bank	Jan. 2, 1917
	Northern Crown Bank	July 2, 1918
	Union Bank of Canada	Aug. 31, 1925
Imperial Bank of Canada	Niagara District Bank	June 21, 1875
Banque d'Hochelaga[3]	Banque Nationale	April 30, 1924
Bank of New Brunswick	Summerside Bank	Sept. 12, 1901
Merchants Bank of Canada	Merchants Bank	Feb. 22, 1868
	Commercial Bank of Canada	June 1, 1868
Union Bank of Halifax	Commercial Bank of Windsor	Oct. 31, 1902
Northern Crown Bank	The Northern Bank	July 2, 1908
	Crown Bank of Canada	July 2, 1908
Union Bank of Canada	United Empire Bank	Mar. 31, 1911
Home Bank of Canada	La Banque Internationale du Canada	April 15, 1913
Standard Bank of Canada	Western Bank of Canada	Feb. 13, 1909
	Sterling Bank of Canada	Dec. 31, 1924

[1]The purchasing banks named in the latter part of the table are no longer in business.
[2]Dates given since 1900 are those of the Orders in Council authorizing the absorption.
[3]The Banque d'Hochelaga after absorbing the Banque Nationale adopted the name Banque Canadienne Nationale.

Government and Other Savings Banks.[4]—There are two classes of Dominion Government Savings Banks in Canada, the Post Office Savings Banks, under the Post Office Department, and the Dominion Government Savings Banks, attached to the Department of Finance. The former were established under the Post Office Act of 1867 (31 Vict., c. 10) in order "to enlarge the facilities now available for the deposit of small savings, to make the Post Office available for that purpose, and to give the direct security of the Dominion to every depositor for repayment of all money deposited by him together with the interest due thereon". On Mar. 31, 1928, the number of offices authorized to transact business was 1,355, and the number of savings accounts was 77,849. Statistics of deposits are given in Table **27.** The Government Savings Banks proper, under the authority of the Finance Department, are established in the leading cities of Canada under the management of the Assistant Receivers-General, and in other places in the provinces of Nova Scotia and New Brunswick, under managers appointed by the Governor in Council. Statistics of their deposits are given in Table **28** and for the two systems combined in Table **29.**

[4]The system of Government of Ontario Savings Offices, established as sub-Treasury Offices of the Province, conducts a purely savings bank business, paying 3 p.c. on deposits, all of which are repayable on demand. The system has been in operation for about seven years. Total deposits were $19,844,105 at Oct. 31, 1928, number of depositors approximately 60,000, and the number of offices 17, mostly in the western sections of the province. The province effects a saving by utilizing deposits for governmental purposes, rather than procuring funds by means of bond issues.

A similar system is in operation in Manitoba, where 4 or 5 sub-Treasury Offices of the Province had about 45,000 accounts and deposits of $15,603,452 at April 30, 1928.

In Alberta, the Provincial Treasury receives savings deposits and issues Savings Certificates bearing interest at 4 p.c. These savings certificates aggregated $11,754,759 at Mar. 31, 1928.

Other Savings Banks.—The Montreal City and District Savings Bank, founded in 1846 and now operating under a charter of 1871, had on Dec. 31, 1928, a paid-up capital of $2,000,000, savings deposits of $58,262,283, and total liabilities of $59,281,527. Total assets amounted to $63,525,277, including over $44,000,000 of Dominion, provincial and municipal securities. The Caisse d'Economie de Notre-Dame de Québec, founded in 1848 under the auspices of the St. Vincent de Paul Society, incorporated by Act of the Canadian Legislature in 1855 and given a Dominion charter by 34 Victoria, c. 7, had on Dec. 31, 1928, deposits of $12,986,683, a paid-up capital of $1,000,000 and total assets of $16,296,474.

The co-operative people's banks of Quebec (159 reported to the Provincial Government in 1927) are also an important element in promoting thrift and assisting business in that province. Loans granted in 1927 numbered 16,832, amounting to $4,778,761. Profits realized amounted to $537,294. (See p. 754).

Historical statistics of Post Office savings banks, of Dominion Government savings banks, of the Montreal City and District Savings Bank and the Caisse d'Economie de Notre-Dame de Québec are given in Table **26.**

26.—Deposits with Government and other Savings Banks,[1] June 30, 1868-1906, and Mar. 31, 1907-1928.

NOTE—Figures for all intermediate years will be found on p. 833 of the 1926 Year Book.

Years.	Postal Savings Banks.	Dominion Government Savings Banks.	Other Savings Banks[1] (Montreal City and District and Caisse d'Economie de Notre-Dame de Québec).	Total.	Amount per head of Population.
	$	$	$	$	$
1868	204,589	1,483,219	3,369,799	5,057,607	1·50
1870	1,588,849	1,822,570	5,369,103	8,780,522	2·54
1875	2,926,090	4,245,091	6,611,416	13,782,597	3·55
1880	3,945,669	7,107,287	6,681,025	17,733,981	4·21
1885	15,090,540	17,888,536	9,191,895	42,170,971	9·29
1890	21,990,653	19,021,812	10,908,987	51,921,452	10·83
1895	26,805,542	17,644,956	13,128,483	57,578,981	11·44
1900	37,507,456	15,642,267	17,425,472	70,575,195	13·26
1905	45,368,321	16,649,136	25,050,966	87,068,423	14·53
1906	45,736,488	16,174,134	27,399,194	89,309,816	14·47
1907	47,453,228	15,088,584	28,359,618	90,901,430	14·42
1908	47,564,284	15,016,871	28,927,248	91,508,403	14·10
1909	45,190,484	14,748,436	29,867,973	89,806,893	13·41
1910	43,586,357	14,677,872	32,239,620	90,503,849	13·08
1911	43,330,579	14,673,752	34,770,386	92,774,717	12·87
1912	43,563,764	14,655,564	39,526,755	97,746,083	13·27
1913	42,728,942	14,411,541	40,133,351	97,273,834	12·92
1914	41,591,286	13,976,162	39,110,439	94,677,887	12·31
1915	39,995,406	14,006,158	37,817,474	91,819,038	11·68
1916	40,008,418	13,519,855	40,405,037	93,933,310	11·69
1917	42,582,479	13,633,610	44,139,978	100,356,067	12·27
1918	41,283,479	12,177,283	42,000,543	95,461,305	11·46
1919	41,654,960	11,402,098	46,799,877	99,856,935	11·78
1920	31,605,594	10,729,218	53,118,053	95,452,865	11·06
1921	29,010,619	10,150,189	58,576,775	97,737,583	11·12
1922	24,837,181	9,829,653	58,292,920	92,959,754	10·43
1923	22,357,268	9,433,839	59,327,961	91,119,068	10·09
1924	25,156,449	9,055,091	64,245,811	98,457,351	10·76
1925	24,662,060	8,949,073	65,837,254	99,448,387	10·73
1926	24,035,669	8,794,870	67,241,344	100,071,883	10·66
1927	23,402,337	8,519,706	69,940,351	101,862,394	10·70
1928	23,463,210	7,640,566	72,695,422	103,799,198	10·75

[1]Does not include Provincial Government savings banks, referred to in the note at the bottom of p. 862.

27.—Business of the Post Office Savings Banks, Mar. 31, 1923-1928.

Items.	1923.	1924.	1925.	1926.	1927.	1928.
Savings banks.....No.	1,307	1,345	1,369	1,365	1,367	1,35
Deposits..... $	2,606,611	7,118,912	4,089,059	3,508,289	3,178,564	3,090,1
Transferred from Government S.B. to Post Office S.B..... $	–	207,053	–	–	–	631,2
Interest on deposits..... $	677,918	672,436	733,136	705,176	681,976	690,0
Total cash and interest.. $	3,284,529	7,791,348	4,822,195	4,213,464	3,860,540	4,411,5
Withdrawals..... $	5,764,442	5,199,220	5,316,584	4,839,856	4,493,872	4,350,7
At credit of open accts.. $	22,257,268	25,156,449	24,662,060	24,035,669	23,402,337	23,463,2
Open accounts.....No.	76,111	81,104	80,550	79,178	77,580	77,8

28.—Business of the Dominion Government Savings Banks, Mar. 31, 1923-1928.

Items.	1923.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$	$
Deposits.....	1,223,171	1,344,503	1,105,021	1,063,821	939,056	994,
Interest on deposits.....	278,640	263,551	261,223	257,569	246,846	218,8
Total cash and interest.....	1,501,811	1,608,054	1,366,244	1,321,390	1,185,905	1,212,9
Withdrawals.....	1,897,625	1,986,806	1,472,262	1,475,588	1,465,403	2,098,2
At credit of depositors.....	9,433,839	9,055,091	8,949,073	8,794,870	8,519,944	7,640,8

29.—Total Business of Post Office and Dominion Government Savings Banks, Mar 31, 1923-1928.

Items.	1923.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$	$
Deposits.....	3,829,782	8,463,415	5,194,080	4,572,110	4,117,623	4,084,55
Interest on deposits.....	956,558	935,987	994,359	962,745	928,822	908,60
Total cash and interest.....	4,786,340	9,399,402	6,188,439	5,534,854	5,046,445	4,993,16
Withdrawals.....	7,662,067	7,186,026	6,788,846	6,315,444	5,959,275	6,449,03
At credit of depositors.....	31,791,107	34,211,540	33,611,133	32,830,539	31,922,281	31,104,01

Section 3.—Loan and Trust Companies.

Business such as that now transacted by loan and trust companies was firs carried on by an incorporated Canadian company in 1844, when the Lambton Loa and Investment Co. was established, while the Montreal Building Society wa incorporated by c. 94 of the statutes of 1845. In order to legalize and encourage such operations in Upper Canada, an Act was passed by the Canadian Legislature in 1846, followed in 1847 and 1849 by Acts in New Brunswick and Nova Scotia respectively. These early companies were termed building societies; their activities comprised mainly the lending of money on the security of real estate and also the lending of money to members without their being liable to the contingency of losses or profits in the business of the society. In addition to these operations, such companies were authorized by an Act of 1859 to "borrow money to a limited extent" Later, by the Building Societies Act of 1874, authority was given to receive money on deposit and to issue debentures, subject to certain restrictions as to amounts o deposits.

The number of loan and savings societies in operation and making returns t the Government at Confederation was 19, with an aggregate paid-up capital o $2,110,403 and deposits of $577,299. Rapid increases in the number of companies and total volume of business resulted from subsequent legislation until in 189 102 companies (including trust companies) made returns, showing capital stock paid up $47,337,544, reserve funds of $9,923,728 and deposits of $19,466,676; tota liabilities had increased from $3,233,985 to $148,143,496 between 1867 and 1899. By 1913 the number of companies had declined, through amalgamations and absorp

tions to 74 (including 16 trust companies), with a combined paid up capital of $68,091,042, reserves of $35,959,342, deposits of $32,681,806 and total liabilities of $478,658,228.

The laws relating to trust and loan companies were revised by the Loan and Trust Companies Acts of 1914 (4-5 Geo. V, cc. 40 and 55), with the result that the statistics of provincially incorporated loan and trust companies ceased to be collected. The statistics of Tables **31** and **32** refer only to those companies operating under Dominion charter, except that in 1926 and 1927 the statistics of two loan companies and two trust companies incorporated by the province of Nova Scotia and brought by the laws of that province under the examination of the Dominion Department of Insurance, have been included. Also, since 1922 provincially incorporated loan and trust companies make voluntary returns of their principal statistics to the Dominion Department of Insurance, so that all-Canadian totals are again available for recent years. As indicating the progress of the aggregate of loan company business in Canada, it may be stated that the book value of the assets of all loan companies rose from $188,637,298 in 1922 to $211,680,072 in 1927. The total assets in the hands of the trust companies increased from $805,689,070 in 1922 to $1,101,394,523 in 1927. The latter figure included $966,523,622 of "estates, trusts and agency funds" (Table **30**).

Functions of Loan Companies.—The principal function of loan companies is the loaning of funds on first mortgage security, the money thus made available for development purposes being secured mainly by the sale of debentures to the investing public and by savings department deposits. Of the loan companies operating under provincial charters, the majority conduct loan, savings and mortgage businesses, generally in the more prosperous farming communities.

Functions of Trust Companies.—Trust companies, it may be added, act as executors, trustees and administrators under wills or by appointment, as trustees under marriage or other settlements, as agents or attorneys in the management of the estates of the living, as guardians of minor or incapable persons, as financial agents for municipalities and companies, and, where so appointed, as authorized trustees in bankruptcy. Some companies receive deposits, but the loaning of actual trust funds is restricted by law. The figures of Table **30** are of particular interest in the case of trust companies, which, on account of the nature of their transactions, are peculiarly provincial institutions, since their chief duties are intimately connected with the matter of probate, which lies within the sole jurisdiction of the provinces.

30.—Summary Statistics of the Operations of Dominion and Provincial Loan and Trust Companies in Canada, 1927.

LOAN COMPANIES.

Items.	Provincial Companies.	Dominion Companies.	Total.
	$	$	$
Book value of Assets	77,010,338	134,669,734	211,680,072
Liabilities to the public	46,387,228	95,895,897	142,283,123
Capital Stock—			
Authorized	42,015,860	71,022,460	113,038,320
Subscribed	16,311,095	30,140,970	46,452,065
Paid up	15,298,738	20,699,710	35,998,448
Reserve and Contingency Funds	12,320,493	14,867,432	27,187,925
Other liabilities to shareholders	2,597,960	3,028,979	5,626,939
Total liabilities to shareholders	30,217,191	38,596,121	68,813,312
Net profit realized during year	1,703,507	2,300,256	4,003,763

30.—Summary Statistics of the Operations of Dominion and Provincial Loan and Trust Companies in Canada, 1927—concluded.

TRUST COMPANIES.

Items.	Provincial Companies.	Dominion Companies.	Total.
	$	$	$
Assets—			
Company Funds	39,312,959	13,682,713	52,995,672
Guaranteed Funds	59,410,475	22,464,754	81,875,229
Estates, Trusts and Agency Funds	805,483,561	161,040,061	966,523,622
Total	904,206,995	197,187,528	1,101,394,523
Capital Stock—			
Authorized	34,900,000	19,850,000	54,750,000
Subscribed	20,479,650	11,876,100	32,355,750
Paid up	18,281,671	9,824,033	28,105,704
Reserve and Contingency Funds	11,420,526	2,653,673	14,074,199
Unappropriated Surplus	1,715,497	352,132	2,067,629
Net profit realized during year	2,284,845	842,892	3,127,737

31.—Liabilities and Assets of Loan Companies chartered by the Dominion Government, 1914-1927.

LIABILITIES.

Years.	Liabilities to Shareholders.			Liabilities to the Public.				
	Capital paid up.	Reserve Funds.	Total.[1]	Debentures and Debenture Stock.		Deposits.	Interest due and accrued.	Total.[2]
				Canada.	Elsewhere and sundries.			
	$	$	$	$	$	$	$	$
1914	19,238,512	9,374,363	29,375,689	6,688,124	26,101,702	8,104,072	318,504	41,212,402
1915	19,401,856	9,878,266	30,155,708	6,764,836	25,538,301	9,193,194	340,627	41,836,958
1916	19,673,934	10,319,176	29,993,110	6,889,946	24,653,657	8,987,720	347,864	40,879,187
1917	19,813,217	10,705,215	30,518,432	7,075,081	22,430,846	8,934,825	351,420	38,792,172
1918	19,945,858	10,938,193	30,884,051	7,442,982	23,501,565	7,802,539	364,087	39,111,173
1919	20,191,612	11,923,234	32,114,846	–	–	9,347,096	–	42,405,175
1920	24,062,521	13,442,364	39,110,640	16,982,032	18,451,054	15,257,840	–	51,302,620
1921	25,750,966	14,278,619	40,629,689	17,682,083	20,265,766	15,868,926	480,547	54,651,433
1922	25,241,600	14,740,834	40,013,363	20,360,480	22,390,990	16,910,558	499,661	60,386,905
1923	24,939,622	14,879,516	41,239,712	22,667,861	24,315,010	15,854,029	577,460	63,600,093
1924	22,592,057	13,734,681	37,122,138	25,426,434	21,901,431	15,970,077	543,131	63,989,556
1925	23,632,474	14,555,603	38,461,375	30,052,139	21,600,001	18,660,122	533,755	71,066,398
1926	23,498,336	14,861,280	38,977,937	36,613,088	21,572,810	21,316,150	663,987	80,447,486
1927	20,699,710	14,867,432	38,596,121	47,818,386	19,965,321	27,019,323	868,694	95,895,897

ASSETS.

Years.	Real Estate.[3]	Mortgages on Real Estate.	Collateral Loans.	Bonds, Debentures, Stocks and other Company property.	Cash on hand and in Banks.	Interest, rents, etc., due and accrued.	Total.[4]
	$	$	$	$	$	$	$
1914	1,763,892	53,710,084	–	11,301,869	3,220,803	591,443	70,588,091
1915	1,779,030	52,807,357	–	12,793,309	3,933,004	679,966	71,992,660
1916	1,485,267	51,981,926	–	13,482,805	3,241,053	681,246	70,872,297
1917	1,577,576	49,712,872	–	14,156,080	3,478,220	751,475	69,676,223
1918	1,512,520	48,293,988	–	16,640,017	3,023,839	524,664	69,995,028
1919	–	–	–	–	2,838,636	261,810	74,520,021
1920	4,753,049	63,725,084	1,750,128	16,593,932	3,363,877	1,658	90,413,260
1921	4,979,779	67,147,513	1,618,865	15,328,797	4,568,984	2,790,348	96,698,810
1922	5,309,854	69,824,985	1,916,976	16,967,305	4,800,649	2,989,460	102,462,090
1923	5,515,170	73,858,726	1,772,148	16,445,635	3,467,822	3,353,822	104,866,101
1924	4,035,532	71,468,506	1,722,803	18,568,856	3,636,592	2,470,756	101,919,833
1925	3,982,921	79,106,407	1,532,366	20,210,387	3,442,928	2,180,700	110,638,660
1926	4,150,307	89,873,578	1,161,886	18,426,169	4,284,648	2,274,535	120,321,095
1927	3,999,808	102,501,193	1,585,891	18,884,434	5,672,479	2,020,087	134,669,733

[1]Includes other liabilities to shareholders.
[2]Includes other liabilities to the public.
[3]Book value of real estate for company's use.
[4]Includes other assets.

32.—Liabilities and Assets of Trust Companies chartered by the Dominion Government, 1914-1927.

COMPANY FUNDS—LIABILITIES.

Years.	To Shareholders.				To the Public.	Total.
	Capital paid up.	Reserve Funds.	Other Liabilities.	Total.	Taxes, borrowed money, etc.	
	$	$	$	$	$	$
1914	6,051,146	2,541,413	202,427	8,794,986	1,948,414	10,743,400
1915	5,307,128	1,159,479	233,738	6,700,345	606,005	7,306,350
1916	5,673,670	1,245,589	287,214	6,919,259	620,470	7,826,943
1917	5,297,130	1,275,789	352,153	6,925,072	731,220	7,656,292
1918	6,266,203	1,477,617	415,938	8,159,758	676,379	8,856,137
1919	7,356,474	1,643,464	391,625	9,391,563	616,378	10,007,941
1920	7,465,376	1,908,753	391,975	9,766,104	561,265	10,327,369
1921	7,532,777	1,746,579	167,303	9,446,656	499,264	9,945,923
1922	7,678,401	1,912,123	46,068	9,636,592	329,827	9,966,419
1923	7,772,749	1,908,887	5,674	9,687,310	832,724	10,520,034
1924	8,796,479	1,918,567	169,390	10,884,436	766,783	11,651,219
1925	9,523,618	2,261,890	184,153	11,969,661	232,813	12,202,474
1926	9,666,449	2,313,464	393,932	12,373,845	580,380	12,954,225
1927	9,824,031	2,653,673	443,377	12,921,081	571,279	13,492,360

COMPANY FUNDS—ASSETS.

Years.	Loans.			Real estate.	Government, municipal and school securities, owned.	Stocks.	Cash on hand and in banks.	Market value of real estate, government securities, etc., over book value.	All other assets belonging to the companies.	Total assets of the companies.
	On real estate, first liens.	On real estate, second liens.	On stocks and securities.							
	$	$	$	$	$	$	$	$	$	$
1914	5,189,797	113,095	557,625	–	787,400	–	179,928	879,039	3,033,756	10,714,640
1915	3,972,520	102,395	647,524	–	876,760	–	172,448	5,181	1,529,522	7,306,350
1916	3,906,986	544,747	374,392	–	1,116,110	–	266,964	32,231	1,585,513	7,826,943
1917	3,993,484	297,387	253,781	–	1,145,815	–	173,130	3,331	1,789,364	7,656,292
1918	3,933,962	101,784	294,472	–	1,839,000	–	724,689	5,865	1,936,365	8,836,137
1919	4,432,455	557,171	496,769	–	2,170,618	–	706,763	8,392	1,635,773	10,007,941
1920	4,736,064	–	512,800	701,564	2,500,942	349,294	576,125	–	847,463	10,224,252
1921	4,408,914	–	344,302	908,618	2,400,914	253,779	603,618	–253,598	1,317,785	10,237,930
1922	5,254,434	–	391,475	567,970	1,584,234	264,186	473,687	–302,974	1,412,205	10,353,243
1923	5,402,752	–	375,129	1,048,682	1,656,304	292,564	481,672	–255,343	1,573,406	10,830,509
1924	5,114,753	–	446,001	1,551,673	1,598,971	336,818	524,368	–340,919	2,483,675	12,056,259
1925	5,143,123	–	618,250	1,969,737	2,323,064	432,956	203,431	–37,266	1,763,355	12,453,916
1926	5,450,907	–	580,128	2,091,322	2,318,344	477,917	705,064	–50,295	1,571,595	13,195,277
1927	5,668,574	–	977,514	2,140,344	1,993,823	494,083	804,469	29,656	1,603,906	13,682,713

TRUST FUNDS—LIABILITIES.

Years.	Guaranteed Funds.			Estate, Trust and Agency Funds.	Total.
	Principal.[1]	Interest due and accrued.	Total.		
	$	$	$	$	$
1914	8,560,468	–	8,560,468	29,832,343	38,392,811
1915	9,727,099	–	9,727,099	31,002,934	40,730,033
1916	10,405,318	–	10,405,318	36,756,902	47,162,220
1917	11,149,958	–	11,149,958	38,141,389	49,291,347
1918	12,743,379	–	12,743,379	56,194,857	68,938,236
1919	12,704,672	–	12,704,672	52,084,047	64,788,719
1920	9,339,070	135,971	9,475,041	57,225,303	66,700,344
1921	8,424,128	125,514	8,549,642	79,252,639	87,811,965
1922	8,473,720	126,868	8,600,588	92,449,298	101,049,886
1923	10,306,767	178,096	10,484,863	102,764,835	113,249,698
1924	14,027,120	133,583	14,160,703	123,082,289	137,242,992
1925	15,897,339	–	15,897,339	131,420,502	147,317,841
1926	17,979,412	–	17,979,412	139,777,235	157,756,647
1927	22,464,753	–	22,464,753	161,040,061	183,504,814

[1]Includes money in trust for investment amounting to $2,562,455 in 1914, $3,113,170 in 1915, $3,799,149 in 1916, $3,443,682 in 1917 and $5,170,463 in 1918; similar amounts are included under the heading Estate, Trust and Agency Funds for the years 1920 to 1927. The figure for 1919 is not available.

32.—Liabilities and Assets of Trust Companies chartered by the Dominion Government, 1914-1927—concluded.

TRUST FUNDS—ASSETS.

Years.	Guaranteed Funds.						Estate, Trust and Agency Funds.
	First mortgages, and hypotheques upon improved freehold property.	Collateral loans.	Bonds and debentures.	Cash on hand and in banks.	Other assets.	Total Guaranteed Funds.	
	$	$	$	$	$	$	$
1914	13,258,642	–	2,420,545	870,994	13,184,047	29,734,228	–
1915	12,267,515	–	4,214,787	778,473	11,706,041	28,966,816	–
1916	9,273,771	–	4,841,833	2,661,481	13,400,107	30,177,192	–
1917	9,251,407	–	6,707,457	1,351,416	14,247,227	31,557,507	–
1918	9,314,279	–	9,833,060	2,027,618	15,428,747	36,603,704	–
1919	10,950,249	–	11,393,564	2,694,454	19,256,564	44,294,831	–
1920	4,247,183	–	2,437,106	853,832	1,271,389	8,809,510	64,895,1
1921	4,159,039	–	2,508,197	550,011	1,556,622	8,774,185	79,252,63
1922	5,241,872	–	1,823,290	546,929	1,173,314	8,785,405	92,449,29
1923	8,552,388	220,717	1,010,225	251,508	614,166	10,649,004	102,764,85
1924	12,278,138	345,892	989,050	404,999	290,658	14,308,737	123,082,28
1925	12,897,930	490,528	1,463,920	636,526	408,435	15,897,339	131,420,50
1926	14,005,093	1,334,078	1,488,070	813,344	338,827	17,979,412	139,777,23
1927	16,596,737	2,407,158	1,978,136	1,067,790	414,932	22,464,753	161,040,06

PART II.—INSURANCE.

Insurance companies transacting business throughout the Dominion of Canada are licensed by the Dominion Government under Acts administered by the Department of Insurance under the Minister of Finance, while other insurance companies, doing business only in one province, or, by arrangement, in more provinces than one, are licensed by Provincial Governments. The statistics here published are in the main those of companies doing business under license from the Dominion Government, and are divided into three classes relating to:—(1) insurance against fire, (2) life insurance, and (3) insurance of a miscellaneous character, covering risks of accident, guarantee, employers' liability, sickness, burglary, hail, steam boiler, tornado, weather, inland transportation, automobile, sprinkler leakage, live stock and titles. These statistics refer in all cases to the calendar year and are compiled from the reports of the Department of Insurance.

Since 1915, the Department of Insurance has endeavoured to collect from the available sources statistics of the business transacted by companies holding licenses from the Provincial Governments of Canada, or permitted by the laws of the provinces to transact business without a license. The business of the provincial licensees is divided into three classes:—(1) business transacted by provincially incorporated companies within the province by which they are incorporated; (2) business transacted by provincially incorporated companies in provinces other than those by which they are incorporated; and (3) business transacted by British and foreign companies licensed by the Provincial Governments. Further, under section 129 of the Insurance Act of 1917 (7-8 Geo. V, c. 29), fire insurance on property in Canada may be effected, under specified conditions, with companies or associations outside of Canada which are not licensed to transact insurance business in Canada.

Section 1.—Fire Insurance.

Fire insurance in Canada began with the establishment by British fire insurance companies of agencies, usually situated in the sea ports and operated by local merchants. The oldest existing agency of a British company is that of the Phœnix Fire Office of London, now the Phœnix Assurance Co., Ltd., which commenced

business in Montreal in 1804. On account of the growth of the insurance business of these early British companies, branch offices were established and local managers were appointed, charged with directing the companies' affairs in Canada.

The Halifax Fire Insurance Co. is the first purely Canadian company of which any record is obtainable. Founded in 1809 as the Nova Scotia Fire Association, it was chartered in 1819 and operated in the province of Nova Scotia until 1919, when it was granted a Dominion license. Among the other pioneer fire insurance companies still in operation, mention may be made of the following:—the Quebec Fire Assurance Co., which commenced business in 1818 and was largely confined in ownership and operations to Quebec province; the British America Assurance Co., incorporated in 1833, the oldest company in Ontario; the Western Assurance Co., organized in 1851, and, after a rapid and steady growth, one of the largest companies of its kind on the continent; two United States companies, the Ætna Insurance Co., Hartford, Conn., and the Hartford Fire Insurance Co., which commenced business in Canada in 1821 and 1836 respectively.

A company desirous of carrying on business throughout Canada must obtain a license from the Dominion Government. If it proposes restricting its operations to one particular province, a license may be had from that province, and it may transact business within such limits without regard to any general laws of the Dominion relating to insurance. In 1875 a Department of Insurance was created as a branch of the Finance Department at Ottawa, under the supervision of an officer known as the "Superintendent of Insurance", whose duties are to see that the laws enacted from time to time by the Canadian Parliament are duly observed by the companies. Some important requirements under these laws are:—(1) a deposit of $50,000 of approved securities with the Government; (2) the appointment of a chief agent with power of attorney from the company; (3) the filing of a statement showing the financial position of the company at the time of its application for a license, and subsequent annual statements of its business. In addition, books of record must be kept at its chief office and be open to the inspection of government officers whose practice is to examine them annually.

The report of the Superintendent of Insurance for the year ended Dec. 31, 1927, shows that at that date there were 203 fire insurance companies doing business in Canada under Dominion licenses, of which 44 were Canadian, 64 were British and 95 were foreign companies, whereas in 1875, the first year for which authentic records were collected by the Insurance Department, 27 companies operated in Canada, 11 Canadian, 13 British and 3 American. The proportionate increase in the number of British and foreign companies from 59 p.c. to 78 p.c. of the total number is a very marked point of difference between the fire and life insurance businesses in Canada, the latter being carried on very largely by Canadian companies.

Although in its early days the Dominion did not prove a very lucrative field for fire insurance companies, of late the great advance in building construction and the wide use of improved fire appliances and safety devices reduce materially the danger of serious conflagrations and place the risks assumed by companies in Canada on an equality with those of other countries. A general decline in the rate of losses paid to premiums received may be noted in recent years (Table 1).

A feature of the fire insurance business during recent years, besides the increase in premiums received, is the continued increase in the number of companies which are operating on the mutual or reciprocal plan. These companies, in which all profits or losses are directly received or paid by the policyholders, are making themselves felt as competitive factors in the fire insurance business.

Statistics of Fire Insurance.—Statistical tables of fire insurance in Canada are added, illustrative of the progress of total business since 1869, and of the operations of individual companies for the year 1927. The net amount of fire insurance in force on Dec. 31, 1927, with companies holding Dominion licenses, was $8,287,732,966, while the net amount in force with provincial companies on the same date was $1,225,040,969. In addition, policies amounting to $559,699,149 were in force during the year 1926, the latest year for which information is available, by companies, associations or underwriters not licensed to transact business in Canada. Thus the grand total fire insurance in force on Dec. 31, 1927, would approximate $10,072,473,084.

Table 1 shows figures of the growth since 1869 of companies holding Dominion licenses and Table 2 illustrates the business done in Canada by individual companies during the year 1927, while in Tables 3, 4 and 5 are given figures of the assets, liabilities and income and expenditure of companies of various nationalities during the years 1923 to 1927. A close study of the various items included in these tables will afford an excellent idea of the type of business transacted by these various groups. A further summary of business by provinces is given in Table 6 for the years 1926 and 1927, with premiums and losses shown by nationality of companies. Further, a general summary of the business transacted by both Dominion and provincial licensees is given in Table 7, with business by unlicensed companies added in Table 8.

1.—Fire Insurance in force, Premiums received, Losses paid and Percentage of Losses to Premiums, 1869-1928.[1]

Years.	Amount in force at end of year.	Premiums received.	Losses paid.	Percentage of losses to premiums.	Years.	Amount in force at end of year.	Premiums received.	Losses paid.	Percentage of losses to premiums.
	$	$	$	p.c.		$	$	$	p.c.
1869...	188,359,809	1,785,539	1,027,720	57·56	1899..	936,869,668	7,910,492	5,182,038	65·51
1870...	191,549,586	1,916,779	1,624,837	84·77	1900..	992,332,360	8,331,948	7,774,293	93·31
1871...	228,453,784	2,321,716	1,549,199	66·73	1901..	1,038,687,619	9,650,348	6,774,956	70·20
1872...	251,722,940	2,628,710	1,909,975	72·66	1902..	1,075,263,168	10,577,084	4,152,289	39·26
1873...	278,754,835	2,968,416	1,682,184	55·67	1903..	1,140,453,716	11,384,762	5,870,716	51·57
1874...	306,844,219	3,522,303	1,926,159	54·68	1904..	1,215,013,931	13,169,882	14,099,534	107·06
1875...	364,421,029	3,594,764	2,563,531	71·31	1905..	1,318,146,495	14,285,671	6,000,519	42·00
1876...	404,608,180	3,708,006	2,867,295	77·33	1906..	1,443,902,244	14,687,963	6,584,291	44·83
1877...	420,342,681	3,764,005	8,490,919	225·58	1907..	1,614,703,536	16,114,475	8,445,041	52·41
1878...	409,899,701	3,368,430	1,822,674	54·11	1908..	1,700,708,263	17,027,275	10,279,455	60·37
1879...	407,357,985	3,227,488	2,145,198	66·47	1909..	1,863,276,504	17,049,464	8,646,826	50·72
1880...	411,563,271	3,479,577	1,666,578	47·90	1910..	2,034,276,740	18,725,531	10,292,393	54·96
1881...	462,210,968	3,827,116	3,169,824	82·83	1911..	2,279,868,346	20,575,255	10,936,948	53·16
1882...	526,856,478	4,229,706	2,664,986	63·01	1912..	2,684,355,895	23,194,518	12,119,581	52·25
1883...	572,264,041	4,624,741	2,920,228	63·14	1913..	3,151,930,389	25,745,947	14,003,759	54·39
1884...	605,507,789	4,980,128	3,245,323	65·16	1914..	3,456,019,009	27,499,158	15,347,284	55·81
1885...	611,794,479	4,852,460	2,679,287	55·22	1915..	3,531,620,802	26,474,833	14,161,949	53·49
1886...	586,773,022	4,932,335	3,301,388	66·93	1916..	3,720,058,236	27,783,852	15,114,063	54·40
1887...	634,767,337	5,244,502	3,403,514	64·90	1917..	3,986,197,514	31,246,530	16,379,101	52·42
1888...	650,735,059	5,437,263	3,073,822	56·53	1918..	4,523,514,841	35,954,405	19,359,352	53·84
1889...	684,538,378	5,588,016	2,876,211	51·47	1919..	4,923,024,381	40,031,474	16,679,355	41·67
1890...	720,679,621	5,836,071	3,266,567	55·97	1920..	5,969,872,278	50,527,937	21,935,387	43·41
1891...	759,602,191	6,168,716	3,905,697	63·31	1921..	6,020,513,832	47,312,564	27,572,560	58·28
1892...	821,410,072	6,512,327	4,377,270	67·22	1922..	6,348,637,436	48,168,310	32,848,020	68·19
1893...	814,687,057	6,793,595	5,052,690	74·37	1923..	6,806,937,041	51,169,250	32,142,494	62·82
1894...	836,067,202	6,711,369	4,589,363	68·38	1924..	7,224,475,267	49,833,718	29,186,904	58·57
1895...	837,872,864	6,943,382	4,993,750	71·92	1925..	7,583,297,899	51,040,075	26,943,089	52·79
1896...	815,574,352	7,075,850	4,173,501	58·98	1926..	8,051,444,136	52,595,923	25,705,975	48·87
1897...	868,522,217	7,157,661	4,701,833	65·69	1927..	8,287,732,966	51,375,637	20,831,931	40·55
1898...	895,394,107	7,350,131	4,784,487	65·09	1928[2]	8,773,828,173	54,868,529	24,785,168	45·17
					Total.	.....	**1014,863,912**	**566,611,182**	**55·83**

[1]Dominion companies only. [2]Figures for 1928 are subject to revision.

2.—Fire Insurance Business transacted in Canada, 1927.

Companies.	Gross amount of risks taken during year.	Premiums charged thereon.	Rate of premiums per cent of risks.	Net cash received for premiums.	Net cash paid for losses.	Percentage of losses paid to premiums received.
	$	$	p.c.	$	$	p.c.
Canadian Companies—						
Acadia	50,055,073	535,027	1·07	179,102	73,983	41·31
Antigonish	204,965	2,252	1·10	2,252	1,033	45·86
Beaver	10,690,257	121,218	1·13	34,095	10,405	30·52
British America	136,749,385	1,405,137	1·03	661,113	257,324	38·92
British Canadian	8,356,616	135,080	1·62	70,896	None	–
British Colonial	53,360,989	653,665	1·22	105,843	46,884	44·30
British Northwestern	42,703,959	332,380	·78	189,902	78,926	41·56
Canada Accident	48,152,912	463,042	·96	230,594	94,823	41·12
Canada National	15,859,581	224,083	1·41	117,640	36,516	31·04
Canada Security	29,426,428	314,887	1·07	152,314	66,002	43·33
Canadian Fire	69,798,585	751,396	1·08	395,272	127,324	32·21
Canadian Indemnity	16,524,117	230,025	1·39	161,302	54,959	34·07
Canadian Lumbermen's	437,000	9,494	2·17	2,829	2,540	89·77
Casualty Company of Canada	5,347,477	47,386	·89	27,085	3,125	11·54
Cumberland	330,850	3,388	1·02	3,379	4,151	122·88
Dominion Fire	41,758,852	435,308	1·04	250,795	82,178	32·77
Dominion Gresham	19,409,647	176,700	·91	56,826	32,202	56·67
Dominion of Canada Guarantee	37,425,729	317,971	·85	168,918	35,053	20·75
Ensign Fire	8,043,945	85,643	1·06	44,870	10,774	24·01
Fire Insurance Co. of Canada	73,806,257	772,957	1·05	359,515	143,301	39·86
General Accident of Canada	15,576,147	165,860	1·06	82,829	28,794	34·76
Globe Indemnity	56,875,904	484,640	·85	125,843	45,955	36·52
Grain Insurance	30,175,253	272,417	·90	230,090	125,498	54·54
Guardian Insurance	30,783,642	263,923	·86	80,745	27,597	34·18
Halifax Fire	24,882,106	332,715	1·34	67,977	25,976	38·21
Hudson Bay	32,152,861	318,833	·99	164,574	72,026	43·76
Imperial Insurance	34,941,459	322,399	·92	150,758	59,777	39·65
Kings Mutual	2,613,440	39,014	1·49	37,968	21,873	57·61
Laurentian	21,347,623	321,975	1·51	142,276	125,222	88·01
Liverpool-Manitoba	71,604,574	666,227	·93	279,660	102,123	36·52
London and Lancashire Guarantee and Accident	3,935,125	38,201	·97	13,735	2,338	17·03
London-Canada	33,980,555	350,351	1·03	184,547	59,960	32·49
Mercantile	42,992,724	289,632	·67	138,743	31,833	22·94
Mount Royal	86,665,595	1,056,155	1·22	543,135	293,738	54·08
North Empire	31,553,003	309,606	·98	165,362	63,177	38·21
North West	22,423,861	204,549	·91	128,683	43,027	33·44
Occidental	42,078,584	447,837	1·06	195,476	91,166	46·64
Pacific Coast	48,528,220	417,669	·86	174,999	75,280	43·02
Pictou County Farmers	885,133	6,792	·77	6,792	2,589	38·11
Pioneer	19,172,193	135,099	·70	57,273	9,344	16·31
Quebec	46,202,023	415,493	·90	181,068	52,696	29·10
Reliance	18,011,621	155,461	·86	62,220	15,845	25·47
Scottish Canadian	22,953,235	214,118	·93	85,097	31,717	37·27
Western	151,988,105	1,563,041	1·03	750,949	257,324	34·27
Totals	**1,560,765,610**	**15,809,046**	**1·01**	**7,265,341**	**2,826,387**	**38.90**
British Companies—						
Alliance	72,493,321	525,241	·72	469,939	162,589	34·60
Anglo-Scottish	48,264,156	421,404	·87	223,755	94,670	42·31
Atlas	117,852,091	967,133	·82	786,532	334,867	42·58
Autocar	14,797,144	132,586	·90	110,073	43,159	39·21
Bankers and Traders	15,965,108	143,162	·90	108,646	27,534	25·34
British and European	13,091,476	134,990	1·03	83,430	30,869	37·00
British Crown	57,263,398	522,380	·91	403,762	191,293	47·38
British General	30,502,887	249,176	·82	137,356	53,541	38·98
British Law	12,880,916	122,550	·95	77,584	30,641	39·49
British Oak	15,738,040	210,950	1·34	164,165	69,829	42·54
British Traders	56,656,414	383,501	·68	268,946	81,591	30·34
Caledonian	57,288,774	551,479	·96	387,563	127,991	33·02
Car and General	37,276,211	334,209	·90	235,488	153,574	65·22
Central	32,845,802	293,895	·89	196,334	65,930	33·58
Century	65,805,148	535,038	·81	272,712	110,613	40·56
China	3,866,028	26,409	·68	15,781	6,746	42·75
Commercial Union	116,800,384	1,049,816	·90	800,712	310,899	38·83
Cornhill	27,656,038	231,345	·84	194,474	95,581	49·15
Eagle Star	81,956,659	584,098	·71	464,638	235,873	50·76

2.—Fire Insurance Business transacted in Canada, 1927—continued.

Companies.	Gross amount of risks taken during year.	Premiums charged thereon.	Rate of premiums per cent of risks.	Net cash received for premiums.	Net cash paid for losses.	Percentage of losses paid to premiums received
	$	$	p.c.	$	$	p.c.
British Companies—concluded.						
Employers' Liability	128,855,539	981,373	·76	718,676	261,524	36·9
Essex and Suffolk	31,257,019	235,491	·75	89,226	32,626	36·7
Federated British	7,612,691	72,721	·96	59,539	10,846	18·2
General Accident Fire	57,962,013	412,482	·71	334,207	145,156	43·3
Guardian Assurance	167,080,169	1,646,130	·99	1,406,191	660,435	46·7
Law Union and Rock	45,475,944	456,698	1·00	383,973	119,945	31·4
Liverpool and London and Globe	228,316,828	2,068,456	·91	1,402,388	518,523	36·97
Local Government	12,303,447	117,845	·96	69,002	10,246	14·85
London and Lancashire Insurance	177,582,494	1,537,095	·87	1,277,880	493,188	38·59
London and Provincial	4,484,921	43,853	·98	35,803	7,512	20·98
London and Scottish	18,928,735	127,768	·67	91,476	26,788	29·28
London Assurance	72,272,270	664,271	·92	542,816	207,920	38·30
London Guarantee	48,136,208	405,764	·84	288,741	88,850	30·77
Marine	None	None	–	None	None	–
Merchants Marine	44,077,627	293,675	·67	201,967	85,022	42·10
Motor Union	18,338,527	153,100	·83	122,252	49,722	40·67
National Provincial	26,117,324	218,336	·84	151,526	38,722	25·55
North British	164,656,592	1,424,345	·87	1,103,130	485,443	44·00
Northern Assurance	134,194,045	1,106,271	·82	841,194	367,928	43·74
Norwich Union	138,301,189	1,354,952	·98	991,319	437,058	44·09
Ocean Accident and Guarantee	70,370,423	653,586	·93	459,088	238,168	51·88
Palatine	58,931,559	499,729	·85	369,444	186,466	50·47
Patriotic	26,874,506	203,620	·76	151,926	82,599	54·37
Pearl	None	None	–	None	None	–
Phœnix of London	195,711,071	1,794,218	·92	1,245,327	469,839	37·73
Planet	None	None	–	None	None	–
Provincial	32,395,835	346,919	1·07	300,747	142,639	47·43
Prudential	36,196,234	373,066	1·03	286,830	139,006	48·46
Queensland	40,098,396	372,945	·93	249,708	101,569	40·67
Railway Passengers	360,102	3,789	1·05	3,040	None	–
Royal Exchange	100,016,875	820,369	·82	629,973	199,688	31·70
Royal Insurance	280,692,344	2,395,827	·85	1,909,171	716,589	37·53
Royal Scottish	36,910,547	273,830	·74	184,540	90,530	49·06
Scottish Metropolitan	52,718,932	327,928	·62	231,011	89,996	38·95
Scottish Union	53,983,907	471,975	·87	405,776	150,791	37·16
Sea	25,843,326	195,328	·76	160,819	60,364	37·54
State Assurance	13,061,231	125,263	·96	72,497	16,992	23·44
Sun Insurance	120,662,227	1,037,319	·86	814,210	376,737	46·27
Union Assurance	84,054,230	741,582	·88	536,776	210,109	39·14
Union of Canton	62,870,889	474,619	·75	352,310	169,874	48·22
Union Marine	None	None	–	None	None	–
United British	21,891,835	158,242	·72	123,149	60,363	49·02
World Marine	35,074,318	166,486	·47	121,900	76,986	63·15
Yangtsze	17,153,047	168,410	·98	137,832	75,965	55·11
Yorkshire	45,343,308	442,879	·98	359,570	164,542	45·76
Totals	**3,816,168,719**	**32,787,897**	**·86**	**24,618,841**	**10,095,057**	**41·01**
Foreign Companies—						
Ætna	88,266,018	619,750	·70	534,711	221,451	41·42
Affiliated Underwriters	29,906,810	150,975	·50	130,113	21,511	16·53
Agricultural	19,874,299	111,303	·56	67,984	20,245	29·78
Alliance Insurance	25,960,984	151,113	·58	113,448	51,864	45·72
American Alliance	4,148,028	37,789	·91	11,875	2,576	21·69
American Central	28,074,928	324,861	1·16	222,265	124,479	56·00
American Equitable	10,966,973	118,394	1·08	97,248	40,808	41·96
American Exchange	7,889,250	27,269	·35	25,847	865	3·35
American Insurance	30,503,549	179,632	·59	108,942	54,581	50·10
American Lloyds	8,383,951	64,897	·77	55,101	16,109	29·24
American Reserve	24,067,841	249,847	1·04	144,303	59,944	41·54
Automobile	None	None	–	None	None	–
Baloise	7,557,828	85,679	1·13	64,413	29,278	45·45
Boston	17,441,933	132,330	·76	80,871	39,095	48·34
Caledonian-American	13,473,495	123,554	·92	60,801	25,477	41·90
California	23,319,343	219,471	·94	160,480	49,467	30·82
Central Manufacturers	3,232,912	49,955	1·55	41,962	23,024	54·87
Citizens	18,279,146	145,177	·79	71,937	15,364	21·36
City of New York	1,606,217	11,187	·70	None	None	–

2.—Fire Insurance Business transacted in Canada, 1927—continued.

Companies.	Gross amount of risks taken during year.	Premiums charged thereon.	Rate of premiums per cent of risks.	Net cash received for premiums.	Net cash paid for losses.	Percentage of losses paid to premiums received.
Foreign Companies—continued.	$	$	p.c.	$	$	p.c.
Columbia	17,679,054	167,945	·95	91,252	44,371	48·63
Commercial Union of New York	1,914,962	26,795	1·40	16,810	3,771	22·43
Connecticut	50,550,370	425,891	·84	217,988	80,161	36·77
Continental	77,071,446	643,914	·84	467,620	173,058	37·01
Equitable Fire and Marine	22,916,125	192,349	·84	43,598	16,032	36·77
Fidelity American	1,773,489	22,311	1·26	18,899	1,060	5·61
Fidelity-Phenix	64,078,270	584,097	·91	453,691	136,952	30·19
Fire Association of Philadelphia	78,420,426	781,191	1·00	443,246	170,514	38·47
Fireman's Fund	28,053,179	247,851	·88	182,613	80,332	43·99
Firemen's Insurance	20,597,407	224,990	1·09	179,761	51,093	28·42
Fire Reassurance	30,923,056	265,610	·86	163,039	76,060	46·65
First American	11,450,060	112,099	·98	66,792	28,565	42·77
La Foncière	11,391,366	117,273	1·03	106,059	20,550	19·38
Franklin	13,568,293	196,322	1·45	None	None	–
General of Paris	21,498,008	197,082	·92	129,760	38,963	30·03
General Insurance Co. of America	10,025,747	81,426	·81	67,337	911	1·35
Girard	5,957,443	49,942	·84	36,943	13,026	35·26
Glens Falls	40,011,256	291,092	·73	188,045	85,490	45·46
Globe and Rutgers	135,966,209	1,158,187	·85	785,535	347,711	44·26
Grain Dealers	70,200	690	·98	—3,814	3,898	–
Great American	66,215,416	602,303	·91	416,558	154,465	37·08
Hardware Dealers	15,217,315	332,634	2·19	290,877	84,164	28·93
Hartford	188,036,445	1,311,749	·70	103,021	461,679	41·86
Home	205,986,595	2,141,735	1·04	642,519	802,877	48·88
Imperial Assurance	18,438,344	185,839	1·01	94,700	23,637	24·96
Individual Underwriters	43,886,880	123,194	·28	111,008	3,007	2·71
Insurance Co. of North America	144,686,304	941,478	·65	691,065	312,580	45·23
Insurance Co. of State of Penna	29,376,115	232,208	·79	131,928	65,759	49·84
Lumbermen's Insurance	8,148,510	74,439	·91	64,062	9,014	14·07
Lumbermen's Mutual Insurance	3,855,163	67,158	1·74	56,989	25,773	45·22
Lumbermen's Underwriting Alliance	–	–	–	–	–	–
Lumber Underwriters	–	–	–	–	–	–
Manufacturing Lumbermen's	–	–	–	–	–	–
Maryland Insurance	5,626,747	64,495	1·15	40,886	14,580	35·66
Mechanics and Traders	1,878,047	31,505	1·68	15,096	10,214	67·66
Merchants Fire	36,176,159	354,626	·98	307,632	107,439	34·92
Millers National	10,959,742	114,214	1·04	100,030	42,249	42·24
Mill Owners	13,450,989	211,197	1·57	149,381	56,680	37·94
Minnesota Implement	15,217,315	332,634	2·19	290,877	84,164	28·93
National-Ben Franklin	37,651,094	408,071	1·08	334,477	151,416	45·27
National Fire of Hartford	88,327,708	772,722	·87	598,594	259,180	43·30
National Guaranty	4,722,080	64,827	1·37	57,263	13,725	23·97
National Union	13,866,954	111,606	·80	88,119	53,936	61·21
La Nationale	67,598,345	773,649	1·14	672,552	348,812	51·86
Newark	33,441,707	264,537	·79	168,492	59,162	35·11
New Hampshire	28,075,228	260,268	·93	179,234	83,571	46·63
New Jersey	18,466,950	121,585	·66	76,697	36,293	47·32
New York Reciprocal	40,537,288	89,983	·22	79,660	1,117	1·40
New York Underwriters	63,469,164	529,114	·83	40,654	11,821	29·08
Niagara	69,343,496	478,807	·69	351,315	176,912	50·36
North River	15,697,145	153,209	·98	114,038	41,020	35·97
Northwestern Mutual	60,690,983	1,042,932	1·72	809,943	310,359	38·32
Northwestern National	33,824,552	390,757	1·16	260,094	85,652	32·93
Pacific	39,282,798	367,287	·93	315,100	99,843	31·69
Phenix of Paris	21,724,452	217,700	1·00	133,370	47,225	35·41
Phœnix Insurance	90,563,159	725,171	·80	361,237	130,963	36·25
Providence Washington	45,883,147	343,991	·75	172,341	77,622	45·04
Queen of America	101,676,491	911,956	·90	717,275	268,722	37·46
Retail Hardware	15,217,315	332,634	2·19	290,877	84,164	28·93
Rhode Island	None	None	–	None	None	–
Rossia	56,279,855	504,866	·90	361,884	169,333	46·79
"Rossia" of Copenhagen	25,864,858	156,983	·61	83,993	42,569	50·68
St. Paul Fire and Marine	60,841,673	434,630	·71	317,259	145,162	45·75
Security	28,678,990	230,408	·80	137,350	54,218	39·47
Sentinel	5,988,649	40,135	·67	5,654	None	–

2.—Fire Insurance Business transacted in Canada, 1927—concluded.

Companies.	Gross amount of risks taken during year.	Premiums charged thereon.	Rate of premiums per cent of risks.	Net cash received for premiums.	Net cash paid for losses.	Percentage of losses paid to premiums received.
	$	$	p.c.	$	$	p.c.
Foreign Companies—concluded.						
Springfield	49,910,260	447,776	·90	305,627	105,427	34·50
Sprinklered Risk	4,589,700	13,826	·30	11,698	700	5·98
Stuyvesant	26,743,627	267,682	1·00	216,223	135,515	62·68
Svea	250,050	4,521	1·81	3,772	None	
Tokio	15,962,230	136,752	·86	60,938	26,449	43·40
L'Union	36,714,723	349,245	·95	282,196	113,110	40·08
United Mutual	6,428,514	105,127	1·64	70,267	27,791	39·55
United States Fire	76,817,391	616,276	·80	344,452	195,087	56·64
United States Merchants	None	None	–	None	None	–
Westchester	37,966,679	322,121	·85	216,139	84,050	38·89
World Fire	17,081,883	124,108	·73	98,569	42,626	43·24
Totals	**3,154,205,095**	**27,826,911**	**·88**	**19,491,457**	**7,910,486**	**40·58**
Grand Totals	**8,531,139,424**	**76,423,855**	**·90**	**51,375,639**	**20,831,930**	**40·55**

3.—Assets of Canadian Companies selling Fire Insurance or Fire Insurance and other classes of Insurance, and Assets in Canada of Companies other than Canadian transacting such business in Canada, 1923-1927.

Items.	1923.	1924.	1925.	1926.	1927.
	$	$	$	$	$
Canadian Companies—					
Real estate	2,755,452	2,757,595	2,793,241	2,984,391	3,213,096
Loans on real estate	2,495,241	2,838,402	4,012,248	3,414,679	4,223,582
Stocks, bonds and debentures	24,144,569	26,917,845	26,887,124	30,485,388	34,129,480
Agents' balances and premiums outstanding	3,264,940	3,163,666	3,214,993	3,490,442	3,803,900
Cash on hand and in banks[1]	3,643,973	4,103,098	3,689,719	3,724,742	4,415,976
Interest and rents	501,479	507,008	541,488	587,756	511,188
Other assets	1,627,622	1,259,298	945,442	905,051	1,354,994
Total assets	**38,433,276**	**41,546,912**	**42,084,255**	**45,592,449**	**51,652,215**
British Companies—					
Real estate	3,595,718	3,548,431	2,988,810	2,998,810	3,045,860
Loans on real estate	3,379,708	3,331,560	2,947,639	3,036,956	2,876,538
Stocks, bonds and debentures	36,258,738	39,035,439	39,085,486	39,184,015	40,732,091
Agents' balances and premiums outstanding	3,957,915	3,897,544	4,162,716	4,382,098	4,557,720
Cash on hand and in banks[1]	3,619,826	3,986,487	4,744,748	4,223,724	5,174,714
Interest and rents	318,393	341,852	346,800	340,774	333,437
Other assets in Canada	436,715	723,730	671,751	642,897	744,365
Total assets in Canada	**51,567,014**	**54,865,043**	**54,947,951**	**54,809,274**	**57,464,725**

[1]Or deposited with Government.

3.—Assets of Canadian Companies selling Fire Insurance or Fire Insurance and other classes of Insurance, and Assets in Canada of Companies other than Canadian transacting such business in Canada, 1923-1927—concluded.

Items.	1923.	1924.	1925.	1926.	1927.
Foreign Companies—					
Real estate	–	–	–	–	–
Loans on real estate	6,500	125,000	14,500	14,500	13,000
Stocks, bonds and debentures	23,278,914	25,804,689	26,010,419	27,184,299	28,785,813
Agents' balances and premiums outstanding	2,694,384	2,890,549	3,011,654	2,906,791	2,908,472
Cash on hand and in banks[1]	5,313,792	4,979,501	5,357,230	5,190,968	5,491,382
Interest and rents	248,108	251,149	258,853	277,624	296,850
Other assets in Canada	67,128	31,003	46,803	111,747	77,159
Total assets in Canada	**31,608,827**	**34,081,891**	**34,699,460**	**35,685,929**	**37,572,676**
All Companies—					
Real estate	6,351,170	6,306,026	5,782,051	5,983,201	6,258,956
Loans on real estate	5,881,449	6,294,962	6,974,387	6,466,135	7,113,121
Stocks, bonds and debentures	83,682,221	91,757,973	91,983,029	96,853,702	103,647,384
Agents' balances and premiums outstanding	9,917,239	9,951,759	10,389,363	10,779,331	11,270,092
Cash on hand and in banks[1]	12,577,591	13,069,086	13,791,697	13,139,434	15,082,072
Interest and rents	1,067,980	1,100,009	1,147,141	1,206,154	1,141,471
Other assets in Canada	2,131,465	2,014,031	1,663,996	1,659,695	2,176,518
Total assets in Canada	**121,609,117**	**130,493,846**	**131,731,666**	**136,087,652**	**146,689,614**

[1]Or deposited with Government.

4.—Liabilities of Canadian Companies selling Fire Insurance or Fire Insurance and other classes of Insurance, and Liabilities in Canada of Companies other than Canadian transacting such business in Canada, 1923-1927.

Items.	1923.	1924.	1925.	1926.	1927.
	$	$	$	$	$
Canadian Companies—					
Unsettled losses	3,584,601	3,492,830	3,165,733	3,451,325	3,939,126
Reserve of unearned premiums	11,388,977	11,860,854	11,653,192	12,669,558	13,699,112
Sundry items	4,020,225	4,302,946	4,452,170	4,619,584	5,095,002
Total liabilities not including capital	**18,993,804**	**19,656,630**	**19,271,095**	**20,740,467**	**22,733,240**
Excess of assets over liabilities, excluding capital	19,439,472	21,890,282	22,813,160	24,851,981	28,918,973
Capital stock paid up	14,852,692	15,087,351	14,311,871	13,653,915	15,003,316
British Companies—					
Unsettled losses	3,199,093	3,189,524	2,589,335	2,911,182	3,379,385
Reserve of unearned premiums	17,461,387	17,560,930	17,858,096	18,955,408	19,457,735
Sundry items	1,391,843	1,293,544	1,222,290	1,310,328	1,495,409
Total liabilities in Canada	**22,052,323**	**22,043,998**	**21,669,721**	**23,176,918**	**24,332,529**

4.—Liabilities of Canadian Companies selling Fire Insurance or Fire Insurance and other classes of Insurance, and Liabilities in Canada of Companies other than Canadian transacting such business in Canada, 1923-1927—concluded.

Items.	1923.	1924.	1925.	1926.	1927.
	$	$	$	$	$
British Companies—concluded					
Excess of assets over liabilities, excluding capital	29,514,691	32,821,045	33,278,230	31,632,356	33,132,1
Capital stock paid up	–	–	–	–	
Foreign Companies—					
Unsettled losses	2,329,418	1,989,183	1,637,229	1,538,817	1,176,8
Reserve of unearned premiums	11,744,730	11,824,844	12,115,693	12,229,515	12,182,1
Sundry items	733,330	685,563	802,968	702,759	855,4
Total liabilities in Canada	**14,807,478**	**14,499,590**	**14,555,890**	**14,471,091**	**14,214,4**
Excess of assets over liabilities, excluding capital	16,800,349	19,582,301	20,143,569	21,207,810	23,358,2
Capital stock paid up	–	–	–	–	
All companies—					
Unsettled losses	9,113,112	8,671,537	7,392,297	7,901,324	8,495,3
Reserve of unearned premiums	40,595,094	41,246,628	41,626,981	43,854,481	45,339,0
Sundry items	6,145,398	6,282,053	6,477,428	6,632,671	7,445,8
Total liabilities in Canada, not including capital	**55,853,605**	**56,200,218**	**55,496,706**	**58,388,476**	**61,280,1**
Excess of assets over liabilities, excluding capital	65,754,512	74,293,628	76,234,959	77,692,147	85,409,1
Capital stock paid up[1]	14,852,692	15,087,351	14,311,871	13,653,915	15,003,3

[1]Canadian companies only.

5.—Cash Income and Expenditure of Canadian Companies selling Fire Insurance or Fire Insurance and other classes of Insurance, and Cash Income and Expenditure in Canada of Companies other than Canadian transacting such business in Canada, 1923-1927.

Items.	1923.	1924.	1925.	1926.	1927.
INCOME.	$	$	$	$	$
Canadian Companies—					
Net cash for premiums from fire and other insurance	20,050,502	20,490,725	20,338,906	21,558,094	23,270,427
Interest and dividends on stocks, etc.	1,524,230	1,614,299	1,605,890	1,790,416	1,944,324
Sundry items	1,903,653	2,699,682	1,648,965	2,766,588	3,661,198
Total cash income	**23,478,385**	**24,804,706**	**23,593,761**	**26,115,098**	**28,875,949**
British Companies[1]—					
Net cash for premiums	32,210,224	31,142,394	32,177,959	34,066,853	35,291,010
Interest and dividends on stocks, etc.	1,771,528	1,806,710	1,781,280	1,780,317	1,772,275
Sundry items	8,858	1,079	645	15,808	5,698
Total cash income	**33,990,610**	**32,950,183**	**33,959,884**	**35,862,978**	**37,068,983**
Foreign Companies[1]—					
Net cash for premiums	24,609,308	22,971,062	24,193,206	23,703,863	24,146,575
Interest and dividends on stocks, etc.	1,170,595	1,233,799	1,267,040	1,345,137	1,425,276
Sundry items	876	61,818	1,245	105	149
Total cash income	**25,780,779**	**24,266,679**	**25,461,491**	**25,049,105**	**25,572,000**
EXPENDITURE.					
Canadian Companies—					
Paid for losses	7,109,798	7,534,827	6,483,977	6,571,218	5,722,354
General expenses	5,827,546	5,351,594	5,654,651	6,413,729	6,032,664
On account of branches other than Fire or Life	8,082,280	7,778,043	7,407,522	8,838,138	10,312,567
Dividends or bonus to shareholders	671,318	756,600	793,114	829,380	1,193,634
Taxes	704,505	757,174	624,058	588,035	690,145
Total cash expenditure	**22,398,367**	**22,185,712**	**20,967,149**[2]	**23,244,547**[2]	**23,953,781**[2]
Excess of income over expenditure	1,080,018	2,618,994	2,626,612	2,870,551	4,922,137
British Companies[1]—					
Paid for losses	15,333,498	13,696,192	12,057,156	11,881,784	10,095,057
General expenses	8,719,475	8,646,466	9,017,645	9,455,705	9,402,303
On account of branches other than Fire or Life	7,650,720	7,085,214	7,415,287	8,244,434	11,205,796
Taxes	1,023,753	965,681	1,082,063	1,116,005	1,178,706
Total cash expenditure	**32,727,446**	**30,293,553**	**29,572,151**	**30,697,928**	**31,881,862**
Excess of income over expenditure	1,263,165	2,556,629	4,387,733	5,165,050	5,187,121
Foreign Companies[1]—					
Paid for losses	12,664,185	11,735,269	11,665,223	10,487,474	7,910,486
General expenses	6,665,517	6,451,174	6,748,047	6,770,930	6,761,904
On account of branches other than Fire or Life	4,805,148	2,860,975	2,925,412	3,543,059	5,522,964
Taxes	759,171	810,574	856,329	845,559	883,216
Total cash expenditure	**25,413,708**	**22,470,469**	**22,896,953**	**22,392,262**	**21,863,853**[3]
Excess of income over expenditure	367,071	1,796,209	2,564,539	2,656,843	3,708,467

[1]Income and expenditure in Canada.
[2]Including $3,827 profits returned to subscribers in 1925, $4,047 in 1926 and $2,417 in 1927.
[3]Includes several small amounts of profits returned to subscribers.

6.—Amount of Net Premiums written and Net Losses incurred in Canada, by Provinces, by Canadian, British and Foreign Companies transacting Fire Insurance Business, 1926 and 1927.

(Licensed re-insurance deducted).

Provinces.	Canadian.		British.		Foreign.	
	Premiums.	Losses.	Premiums.	Losses.	Premiums.	Losses.
1926.	$	$	$	$	$	$
P.E. Island	39,854	51,571	128,918	122,209	69,103	79,505
Nova Scotia	429,123	220,970	934,335	543,039	948,095	589,617
New Brunswick	327,711	182,837	990,937	485,810	848,404	413,668
Quebec	2,141,542	1,094,732	6,277,986	3,242,124	5,152,486	2,697,256
Ontario	3,362,888	1,486,491	9,118,944	4,072,461	6,166,479	3,143,705
Manitoba	792,438	283,414	1,697,024	578,144	1,489,628	697,483
Saskatchewan	1,094,393	518,318	1,643,317	686,684	1,558,070	657,890
Alberta	786,903	392,570	1,681,298	870,417	1,462,878	962,092
British Columbia	824,435	395,203	2,759,032	1,216,689	1,250,299	1,246,832
Yukon	318	–	5,569	–	2,674	1,000
Total[1]	**9,827,399**	**4,696,204**	**25,248,704**	**11,881,789**	**19,950,265**	**10,487,477**
1927.						
P.E. Island	41,332	23,873	131,389	44,257	79,504	30,218
Nova Scotia	439,762	209,742	925,467	362,206	990,901	579,088
New Brunswick	303,250	156,577	976,262	379,356	775,316	282,360
Quebec	2,118,601	894,309	6,189,811	2,613,500	5,081,821	2,007,199
Ontario	3,305,327	1,330,075	8,802,217	3,878,923	5,979,204	2,674,023
Manitoba	786,427	208,127	1,608,585	469,454	1,399,074	372,522
Saskatchewan	1,119,694	372,477	1,600,787	696,091	1,586,947	576,268
Alberta	796,677	358,887	1,623,124	683,353	1,530,694	675,338
British Columbia	862,827	384,289	2,740,884	956,410	2,064,923	711,504
Yukon	2,598	1,092	7,864	6,460	3,073	1,977
Total[1]	**9,782,902**	**3,939,440**	**24,618,840**	**10,095,054**	**19,491,457**	**7,910,498**

[1]Including small items unapportioned by provinces.

Summary of Fire Insurance in Canada, 1927.—Of the total amount of fire insurance effected in Canada during each year, a part is sold by companies holding provincial licenses and permits. Such companies generally confine their operations to the province from which they get authority to operate, but may be allowed at the same time to sell insurance in other provinces. The bulk of fire insurance business, however, is that done by Dominion licensees. Operations in 1927 are summarized in Table 7. Business transacted by unlicensed companies is summarized in Table 8.

7.—Dominion and Provincial Fire Insurance in Canada, 1927.

Items.	Net insurance written.	Net in force at end of year.	Net premiums received.	Net losses paid.
	$	$	$	$
1. Dominion Licensees	8,531,139,424	8,287,732,966	51,375,637	20,831,933
2. Provincial Licensees—				
(a) Provincial companies within province by which they are incorporated	462,953,260	1,110,596,830	5,314,189	2,583,722
(b) Provincial companies within provinces other than those by which they are incorporated	45,491,747	114,444,139	568,380	209,710
Totals for Provincial Companies	508,445,007	1,225,040,969	5,882,569	2,793,432
Grand Totals	**9,039,534,431**	**9,512,773,935**	**57,258,206**	**23,625,365**

8.—Fire Insurance carried on Property in Canada in 1926, under Section 129 of the Insurance Act, 1917, by Companies, Associations or Underwriters not licensed to transact business in Canada.

Companies.	Amount of Insurance.
	$
Lloyd's Associations	61,667,099
Reciprocal Underwriters	9,080,360
Mutual Companies	452,109,892
Stock Companies	36,841,798
Total	**559,699,149**
Description of Property.	
Lumber and Lumber Mills	22,285,611
Industrial Plants and Mercantile Establishments	525,651,920
Railway Property and Equipment	2,670,592
Miscellaneous	9,091,026
Total	**559,699,149**

Amount by Provinces.

	$		$
Prince Edward Island	33,075	Saskatchewan	6,639,788
Nova Scotia	10,932,129	Alberta	5,246,405
New Brunswick	30,973,612	British Columbia	14,630,078
Quebec	194,173,085	Yukon	100,450
Ontario	268,146,427		
Manitoba	6,516,720	**Total**	**559,699,149**[1]

[1] Includes $22,307,400 not apportioned by provinces.

Section 2.—Life Insurance.

An article descriptive of the growth of life insurance in Canada, contributed by A. D. Watson, Esq., of the Department of Insurance, Ottawa, appeared on pages 860-864 of the Canada Year Book, 1925.

Life Insurance Statistics.—The business of life insurance was carried on in Canada in 1927 by 40 active Dominion companies, including 28 Canadian, 5 British and 7 foreign companies. In addition there were 6 British and 5 foreign companies licensed to write insurance but which had ceased to write new insurance, while 4 other British and 4 other foreign companies were authorized under the Act to transact business in connection with policies written prior to Mar. 31, 1878. One other foreign company was licensed to transact business in 1926, but had not written any life insurance business in Canada prior to Dec. 31, 1927.

As shown by the historical statistics of Table **9**, the life insurance business in Canada has expanded from very small beginnings, the total life insurance in force in Dominion companies in 1869 being only $35,680,082, while in 1928 it was $5,609,032,167,[2] the amount per head of the estimated population of Canada having more than doubled since 1919—an evidence of the general recognition of the fact that, in view of the higher prices of commodities, a larger amount of life insurance is necessary for the adequate protection of dependants. Notable also from these historical statistics is the fact that in this field the British companies, which were the leaders in 1869, have fallen far behind the Canadian and the foreign companies. The total amount of new insurance effected during the year 1927 was $864,980,640,[3] as compared with $823,254,205 in 1926, $736,777,818 in 1925 and $628,687,615 in 1924, while the premiums paid were $173,732,359, as compared with $159,872,965 in 1926, $145,480,207 in 1925 and $129,625,269 in 1924.

In Table **10** detailed statistics are given of the business of Canadian, British and foreign companies respectively, by companies, in 1927, while Table **11** is a summary showing the business of Canadian, British and foreign companies for the past

[2] Preliminary figure. [3] In 1928 the new insurance effected was $945,915,028.

5 years. Table 12 shows the ordinary and industrial policies in force and effected during the year ended Dec. 31, 1927. Table 13 gives the insurance death-rate by classes of companies, and Tables 14, 15 and 16 show respectively the assets, liabilities, and cash income and expenditure of Canadian and other life insurance companies for the years 1923 to 1927. Statistics of Dominion fraternal insurance are given in Table 17 and of Dominion and provincial insurance combined in Table 18, which shows that on Dec. 31, 1927, the total life insurance in force in Canada was $5,421,439,125

9.—Life Insurance in force and effected in Canada, by years, 1869-1928.

Years.	Amount in force.				Insurance in force per head of estimated population.	Amount of new insurance effected during year.
	Canadian Companies.	British Companies.	Foreign Companies.	Total.		
	$	$	$	$	$	$
1869	5,476,358	16,318,475	13,885,249	35,680,082	10·45	12,854,132
1870	6,404,437	17,391,922	18,898,353	42,694,712	12·36	12,194,695
1871	8,711,111	18,405,325	18,709,499	45,825,935	13·15	13,332,626
1872	13,070,811	19,258,166	34,905,707	67,234,684	18·62	21,070,101
1873	15,777,197	18,862,191	42,861,508	77,500,896	21·13	21,053,618
1874	19,634,319	19,863,867	46,218,139	85,716,325	22·41	19,108,221
1875	21,957,296	19,455,607	43,596,361	85,009,264	21·87	15,074,258
1876	24,649,284	18,873,173	40,728,461	84,250,918	21·33	13,890,127
1877	26,870,224	19,349,204	39,468,475	85,687,903	21·35	13,534,667
1878	28,656,556	20,078,533	36,016,848	84,751,937	20·78	12,169,755
1879	33,246,543	19,410,829	33,616,330	86,273,702	20·81	11,354,224
1880	37,838,518	19,789,863	33,643,745	91,272,126	21·65	13,906,887
1881	46,014,591	20,983,092	36,266,249	103,290,932	23·88	17,618,011
1882	53,855,051	22,329,368	38,857,629	115,042,048	26·24	20,112,755
1883	59,213,609	23,511,712	41,471,554	124,196,875	28·02	21,572,960
1884	66,519,958	24,317,172	44,616,596	135,453,726	30·20	23,417,912
1885	74,591,139	25,930,272	49,440,735	149,932,146	33·04	27,164,988
1886	88,181,859	27,225,607	55,908,230	171,315,696	37·33	35,171,348
1887	101,793,754	28,163,329	61,734,187	191,694,270	41·33	38,008,310
1888	114,034,279	30,003,210	67,724,094	211,761,583	45·17	41,226,529
1889	125,125,692	30,488,618	76,349,392	231,963,702	48·94	44,556,937
1890	135,218,990	31,613,730	81,591,847	248,424,567	51·83	40,523,456
1891	143,368,817	32,407,937	85,698,475	261,475,229	54·10	37,866,287
1892	154,709,077	33,692,706	90,708,482	279,110,265	57·09	44,620,013
1893	167,475,872	33,543,884	94,602,966	295,622,722	59·89	45,202,847
1894	177,511,846	33,911,885	96,737,705	308,161,436	62·96	49,525,257
1895	188,326,057	34,341,172	96,590,352	319,257,581	63·42	44,341,198
1896	195,303,042	34,837,448	97,660,009	327,800,499	64·45	42,624,570
1897	208,655,459	35,293,134	100,033,684	344,012,277	66·90	48,267,665
1898	226,209,636	36,606,195	105,708,154	368,523,985	70·88	54,764,673
1899	252,201,516	38,025,948	113,943,209	404,170,673	76·85	67,400,733
1900	267,151,086	39,485,344	124,433,416	431,069,846	81·00	68,896,092
1901	284,684,621	40,216,186	138,838,227	463,769,034	86·34	73,899,228
1902	308,202,596	41,556,245	159,053,464	508,812,305	91·98	80,552,966
1903	335,638,940	42,127,260	170,676,800	548,443,000	96·99	91,567,805
1904	364,640,166	42,608,738	180,631,886	587,880,790	100·92	98,306,102
1905	397,916,902	43,809,211	188,578,127	630,334,240	105·20	105,907,336
1906	420,864,847	45,644,951	189,740,102	656,260,900	106·35	95,013,205
1907	450,573,724	46,462,314	118,487,447	685,523,485	108·78	90,382,932
1908	490,266,931	46,161,957	193,087,126	719,516,014	110·85	99,896,206
1909	515,415,437	46,985,192	217,955,351	780,356,980	116·56	131,739,078
1910	565,667,110	47,816,775	242,629,174	856,113,059	123·77	152,762,520
1911	626,770,154	50,919,675	272,530,942	950,220,771	131·85	176,866,979
1912	706,656,117	54,537,725	309,114,827	1,070,308,669	145·32	219,205,103
1913	750,637,092	58,176,795	359,775,330	1,168,590,027	155·25	231,608,546
1914	794,520,423	60,770,658	386,869,397	1,242,160,478	161·47	217,006,516
1915	829,972,809	58,087,018	423,555,850	1,311,616,677	166·83	221,119,558
1916	895,528,435	59,151,931	467,499,266	1,422,179,632	176·99	231,101,625
1917	996,699,282	58,617,506	529,725,775	1,585,042,563	193·77	282,120,430
1918	1,105,503,447	60,296,113	619,261,713	1,785,061,273	214·33	313,251,556
1919	1,362,631,562	66,908,064	758,297,691	2,187,837,317	258·04	524,543,629
1920	1,664,348,605	76,883,090	915,793,798	2,657,025,493	307·83	641,778,095
1921	1,860,026,952	84,940,938	989,875,958	2,934,843,848	333·94	528,193,352
1922	2,013,722,848	93,791,180	1,063,874,958	3,171,388,996	355·99	513,850,912
1923	2,187,434,147	98,023,020	1,148,051,506	3,433,508,673	380·31	561,182,427
1924	2,413,853,480	103,519,236	1,246,623,756	3,763,996,472	411·32	628,687,615
1925	2,672,989,676	108,565,248	1,377,464,924	4,159,019,848	448·72	736,777,818
1926	2,979,946,768	111,375,336	1,518,874,230	4,610,196,334	490·78	823,254,205
1927	3,277,050,348	113,883,716	1,653,474,770	5,044,408,834	522·30	864,980,640
1928[1]	3,672,010,075	115,353,734	1,821,668,358	5,609,032,167	580·77	945,915,028

[1] Figures for 1928 are subject to revision.

10.—Life Insurance in force and effected in Canada, 1927.

Companies.	Policies Issued.		Policies in Force.		Net Premium Income.	Net Amount of policies become claims.[1]
	No.	Gross Amount.	No.	Net Amount.		
		$		$	$	$
Canadian Companies—						
Canada	15,252	54,294,676	118,705	342,035,617	11,432,324	3,236,718
Capital	1,894	2,951,950	8,223	13,432,803	424,869	75,606
Commercial	1,250	3,152,634	4,614	8,989,593	278,875	26,973
Confederation	10,253	22,374,011	85,997	162,920,275	5,875,057	1,438,797
Continental	2,975	5,069,388	20,513	31,540,687	1,094,871	212,216
Crown	8,677	18,697,918	38,399	74,339,732	2,548,328	502,521
Dominion	7,488	17,564,249	48,248	98,990,455	3,484,469	686,340
Dominion of Canada Guarantee and Accident	988	1,548,774	2,362	3,851,267	103,912	13,405
T. Eaton	2,192	4,351,171	6,306	11,358,004	394,196	45,000
Excelsior	5,830	11,716,149	40,512	73,135,608	2,413,194	583,377
Great West	24,457	54,703,141	200,706	442,765,906	15,100,386	2,562,410
Imperial	9,232	26,332,843	77,272	178,600,397	6,478,198	1,056,455
London	103,991	81,222,730	456,018	295,843,753	9,159,717	1,365,938
Manufacturers	14,977	34,264,090	112,979	227,459,111	7,757,270	1,332,730
Maritime	497	1,019,850	1,390	2,533,821	67,931	8,500
Monarch	3,931	7,013,000	27,086	50,455,376	1,433,169	223,115
Montreal	3,765	8,099,924	15,981	27,758,890	904,426	147,962
Mutual of Canada	18,214	49,317,710	166,217	369,834,525	13,807,857	2,896,008
National of Canada	2,757	5,927,290	23,059	43,482,245	1,459,036	292,995
North American	9,326	23,562,388	74,821	142,653,976	5,148,128	1,242,972
Northern	9,213	16,266,933	27,156	42,998,944	1,395,797	285,233
Royal Guardians	2,654	1,508,127	6,913	4,247,930	140,543	62,968
Saskatchewan	1,076	1,424,695	6,630	10,082,810	303,551	50,500
Sauvegarde	3,736	5,729,100	17,580	24,384,817	788,068	189,922
Security	1,109	1,899,887	7,799	9,749,957	236,094	87,050
Sovereign	1,649	2,985,236	12,110	22,858,271	743,442	113,926
Sun	29,737	105,545,753	204,196	552,424,200	18,457,101	3,872,583
Western	763	1,230,945	5,004	8,321,378	213,730	30,150
Total	**297,883**	**569,774,562**	**1,816,796**	**3,277,050,348**	**111,644,539**	**22,642,370**
British Companies—						
Commercial Union	3	16,000	109	541,719	14,922	7,893
Edinburgh[2]	–	–	2	2,796	19	–
Gresham[2]	–	–	1,588	3,369,321	118,131	26,948
Life Association of Scotland[2]	–	–	47	85,559	2,239	25,487
Liverpool and London and Globe[2]	–	–	89	153,271	3,842	7,466
London and Scottish	621	1,044,316	8,179	18,548,536	691,349	512,103
Mutual Life and Citizens (Australia)	32,473	10,111,469	104,934	29,419,575	1,187,351	196,004
North British and Mercantile	–	–	403	1,829,818	75,221	86,344
Norwich Union[2]	–	–	42	54,075	1,344	1,000
Phœnix of London	75	509,624	2,025	7,736,750	222,800	243,877
Royal	369	1,732,295	5,841	23,458,252	768,123	282,580
Scottish Amicable[2]	–	–	7	11,704	180	5,255
Scottish Provident[2]	–	–	1	2,450	93	4,253
Standard	794	2,270,382	10,835	28,603,627	876,741	627,264
Star[2]	–	–	43	66,263	1,340	7,097
Total	**34,335**	**15,684,086**	**134,145**	**113,883,716**	**3,963,695**	**2,033,571**
Foreign Companies—						
Ætna	1,390	9,210,965	17,254	82,921,897	1,916,426	968,335
Connecticut Mutual[2]	–	–	4	8,742	65	–
Equitable	12	61,720	10,560	28,857,287	902,639	608,913
Guardian	8	17,500	40	147,111	7,332	66,922
Metropolitan	335,357	133,743,817	2,467,979	769,125,422	28,948,887	5,277,961
Mutual of New York	3,387	8,442,099	26,675	73,234,722	2,751,544	876,132
National of United States[2]	–	–	26	13,369	40	350
New York	8,848	20,182,700	76,399	171,345,553	5,887,540	1,375,609
Northwestern Mutual[2]	–	–	32	26,395	359	3,121
Phœnix Mutual[2]	–	–	75	45,225	498	7,328
Provident Savings[2]	–	–	268	421,630	9,268	5,130
Prudential	228,742	83,531,104	1,303,551	393,630,086	14,581,564	2,040,200
State	12	514,624	408	1,654,006	30,125	34,000
Travelers of Hartford	4,685	23,251,781	27,544	123,194,389	2,789,683	492,738
Union Mutual	192	505,500	3,451	8,130,414	277,505	116,680
United States	12	60,182	245	718,522	20,650	16,080
Total	**582,645**	**279,521,992**	**3,934,511**	**1,653,474,770**	**58,124,125**	**11,889,499**

[1]Including matured endowments. [2]Ceased transacting new business in Canada.

10.—Life Insurance in force and effected in Canada, 1927—concluded.

Companies.	Policies Issued		Policies in Force		Net Premium Income.	Net Amount of policies become claims.[2]
	No.	Gross Amount.	No.	Net Amount.		
SUMMARY.		$		$	$	$
Canadian Companies	297,883	569,774,562	1,816,796	3,277,050,348	111,644,539	22,642,370
British Companies	34,335	15,684,086	134,145	113,883,716	3,963,695	2,033,51[illegible]
Foreign Companies	582,645	279,521,992	3,934,511	1,653,474,770	58,124,125	11,889,499
Grand Total	**914,863**	**864,980,640**	**5,885,452**	**5,044,408,834**	**173,732,359**	**36,565,4[illegible]**

11.—Progress of Life Insurance in Canada, 1923-1927.

Items.	1923.	1924.	1925.	1926.	1927.
Canadian Companies[1]—					
Policies new and taken up.....No.	209,569	238,816	249,791	277,405	297,88[illegible]
Policies in force at end of year..... "	1,339,690	1,457,469	1,562,930	1,692,660	1,816,79[illegible]
Policies become claims..... "	12,881	15,013	17,039	16,260	17,48[illegible]
Amount of policies new and taken up $	359,198,825	401,014,406	467,736,555	539,165,407	569,774,56[illegible]
Net amount of policies in force..... $	2,187,434,147	2,413,853,480	2,672,989,676	2,979,946,768	3,277,050,34[illegible]
Net amount of policies become claims..... $	17,926,337	18,526,665	19,493,133	21,464,091	22,642,37[illegible]
Amount of premiums in year..... $	74,822,922	82,899,121	93,599,325	102,882,156	111,644,53[illegible]
Claims paid[2]..... $	17,161,682	18,312,933	19,430,607	21,189.288	21,193,97[illegible]
Unsettled claims—					
Not resisted..... $	1,778,936	1,881,381	1,902,002	2,216,541	2,038,45[illegible]
Resisted..... $	43,454	36,793	87,769	55,760	92,68[illegible]
British Companies—					
Policies new and taken up.....No.	44,949	36,208	50,886	45,105	34,33[illegible]
Policies in force at end of year..... "	90,217	99,849	121,857	132,095	134,14[illegible]
Policies become claims..... "	1,342	1,476	1,327	1,358	1,45[illegible]
Amount of policies new and taken up $	19,347,551	17,890,484	17,442,928	16,167,800	15,684,08[illegible]
Net amount of policies in force..... $	98,023,020	103,519,236	108,565,248	111,375,336	113,883,71[illegible]
Net amount of policies become claims..... $	1,816,122	1,602,989	1,728,690	1,641,861	2,033,51[illegible]
Amount of premiums in year..... $	3,310,687	3,544,794	4,121,230	3,888,776	3,963,69[illegible]
Claims paid[2]..... $	1,708,841	1,509,606	1,767,076	1,663,977	1,867,6[illegible]
Unsettled claims—					
Not resisted..... $	241,212	274,940	221,074	183,017	262,87[illegible]
Resisted..... $	10,000	10,841	15,770	4,052	-
Foreign Companies—					
Policies new and taken up.....No.	437,391	510,978	616,309	574,511	582,6[illegible]
Policies in force at end of year..... "	3,012,641	3,222,045	3,506,814	3,729,660	3,934,5[illegible]
Policies become claims..... "	32,520	32,906	35,425	39,362	41,5[illegible]
Amount of policies new and taken up $	182,636,051	209,782,725	251,597,335	267,920,998	279,521,9[illegible]
Net amount of policies in force..... $	1,148,051,506	1,246,623,756	1,377,464,924	1,518,874,230	1,653,474,7[illegible]
Net amount of policies become claims..... $	10,129,735	10,116,574	10,871,029	11,536,579	11,889,4[illegible]
Amount of premiums in year..... $	39,679,462	43,181,354	47,759,652	53,102,033	58,124,1[illegible]
Claims paid[2]..... $	10,125,718	10,319,793	10,903,544	11,629,907	12,307,5[illegible]
Unsettled claims—					
Not resisted..... $	490,079	582,921	708,432	915,776	861,4[illegible]
Resisted..... $	104,956	89,932	33,864	75,362	59,4[illegible]
All companies—					
Policies new and taken up.....No	691,909	786,002	916,986	897,021	914,3[illegible]
Policies in force at end of year..... "	4,442,548	4,779,363	5,191,601	5,554,415	5,885,1[illegible]
Policies become claims..... "	46,743	49,395	53,791	56,980	60,5[illegible]
Amount of policies new and taken up $	561,182,427	628,687,615	736,777,818	823,254,205	864,930,6[illegible]
Net amount of policies in force..... $	3,433,508,673	3,763,993,472	4,159,019,840	4,610,196,334	5,044,408,8[illegible]
Net amount of policies become claims..... $	29,872,194	30,246,228	32,092,852	34,642,526	36,565,4[illegible]
Amount of premiums in year..... $	117,813,071	129,625,269	145,480,207	159,872,935	173,732,3[illegible]
Claims paid[2]..... $	28,995,241	30,133,362	32,101,227	34,483,172	37,369,2[illegible]
Unsettled claims—					
Not resisted..... $	2,510,227	2,739,242	2,831,508	3,315,334	3,162,8[illegible]
Resisted..... $	158,420	137,556	137,403	135,174	152,1[illegible]

[1]Figures of Canadian business only.
[2]Including matured endowments.

12.—Ordinary and Industrial Life Insurance Policies in force and effected in Canada, year ended Dec. 31, 1927.

Policies.	New.			In force.		
	Number.	Total Amount.	Average Amount of a Policy.	Number.	Total Amount.	Average Amount of a Policy.
		$	$		$	$
Ordinary policies—						
Canadian companies	234,402	547,556,458	2,336	1,441,762	3,113,406,364	2,159
British companies	5,257	10,872,981	2,068	39,371	102,332,438	2,599
Foreign companies	82,843	170,926,687	2,063	546,983	996,184,070	1,821
All companies	**322,502**	**729,356,126**	**2,262**	**2,028,116**	**4,211,922,872**	**2,077**
Industrial policies—						
Canadian companies	93,683	40,297,513	430	374,168	104,493,090	279
British companies	29,491	6,141,963	208	94,774	15,293,898	161
Foreign companies	508,925	116,215,642	228	3,387,148	558,139,297	165
All companies	**632,099**	**162,655,118**	**257**	**3,856,090**	**677,926,235**	**176**

13.—Insurance Death-rate in Canada, 1924-1927.

NOTE.—Average death-rate of insured persons for all companies in the 26 years 1901-1926 was 8·9 per 1000.

Companies.	1924.			1925.		
	Number of policies exposed to risk.	Number of policies terminated by death.	Death-rate per 1,000.	Number of policies exposed to risk.	Number of policies terminated by death.	Death rate per 1,000.
Active companies, ordinary	1,583,140	8,460	5·3	1,698,254	9,043	5·3
Active companies, industrial	3,043,268	21,872	7·2	3,301,387	23,398	7·1
Assessment and fraternal societies	216,929	2,495	11·5	218,120	2,550	11·7
Non-active and retired companies	1,335	55	41·2	1,239	66	53·3
Total	**4,844,672**	**32,882**	**6·8**	**5,219,000**	**35,057**	**6·7**
	1926.			1927.		
Active companies, ordinary	1,825,440	10,378	5·7	1,960,060	10,626	5·4
Active companies, industrial	3,563,860	26,156	7·3	3,774,650	27,748	7·4
Assessment and fraternal societies	222,662	2,827	12·7	225,003	2,907	12·9
Non-active and retired companies	1,136	51	44·9	714	37	51·8
Total	**5,613,098**	**39,412**	**7·0**	**5,960,427**	**41,318**	**6·9**

14.—Assets of Canadian Life Companies and Assets in Canada of Life Companies other than Canadian Companies, 1923-1927.

NOTE.—Certain British Companies transacting fire insurance in Canada transact also life insurance in Canada, and inasmuch as a separation of assets has not been made between these two classes, the assets in Canada are not included here, but are included in the assets of British companies shown in Table 3 on page 875.

Items.	1923.	1924.	1925.	1926.	1927.
	$	$	$	$	$
Canadian Companies—					
Real estate	21,874,648	25,952,593	26,230,336	27,542,604	27,415,44
Loans on real estate	158,447,295	175,905,266	193,257,582	217,754,300	253,125,77
Loans on collaterals	2,113,897	2,395,389	1,309,733	1,580,367	299,66
Cash loans and premium obligations on policies in force	91,380,402	107,892,451	113,825,139	128,090,606	141,288,40
Stocks, bonds and debentures	313,460,938	377,180,172	430,482,069	494,341,843	559,199,0
Interest and rent due and accrued	15,282,330	16,685,629	16,488,663	17,288,699	18,274,53
Cash on hand and in banks[1]	6,136,371	6,355,632	7,767,781	6,824,016	7,243,3
Outstanding and deferred premiums	17,423,698	20,176,387	21,532,142	24,358,665	28,000,7
Other assets	346,506	1,063,838	1,280,799	1,192,931	1,662,4
Total assets[2]	**626,466,085**	**733,607,357**	**812,174,244**	**818,974,031**	**1,036,509,5**
British Companies—					
Real estate	773,274	854,991	840,531	974,478	860,1
Loans on real estate	10,815,105	11,199,452	12,778,017	13,197,138	13,298,5
Loans on collaterals	2,955	2,100	2,000	963	8
Cash loans and premium obligations on policies in force	3,226,637	3,343,534	3,439,304	3,516,272	3,638,4
Stocks, bonds and debentures	29,191,997	30,157,252	30,622,296	32,182,272	32,207,3
Interest and rent due and accrued	383,948	411,717	426,836	440,731	446,3
Cash on hand and in banks[1]	392,539	558,061	625,003	365,099	694,3
Outstanding and deferred premiums	513,636	536,177	550,305	563,478	514,7
Other assets	39,788	10,334	41,041	36,547	45,7
Total assets in Canada	**45,339,879**	**47,073,618**	**49,325,333**	**51,276,978**	**51,707,**
Foreign Companies—					
Real estate	603,382	1,170,259	1,793,182	3,811,182	2,766,0
Loans on real estate	9,473,352	10,209,220	12,357,088	19,082,906	23,790,
Loans on collaterals	–	–	–	–	
Cash loans and premium obligations on policies in force	17,580,367	19,452,861	21,704,069	24,120,321	26,932,
Stocks, bonds and debentures	148,659,141	163,148,180	173,181,641	190,849,344	219,994,
Interest and rent due and accrued	2,375,787	2,582,757	2,915,396	3,196,376	3,511,
Cash on hand and in banks[1]	3,081,105	4,282,413	2,798,370	3,131,710	3,896,
Outstanding and deferred premiums	3,790,857	4,065,129	4,474,992	5,080,053	5,587,
Other assets	4,239	27,879	4,369	82,341	46,
Total assets in Canada	**185,568,230**	**204,938,698**	**219,229,107**	**249,354,233**	**286,526,**

[1]Includes cash deposited with the Government.

[2]The figure in the table is the book value; the market value of these assets was $634,166,257 in 1[9]
$748,801,686 in 1924, $833,610,604 in 1925, $945,339,817 in 1926 and $1,077,501,770 in 1927.

15.—Liabilities of Canadian Life Companies and Liabilities in Canada of Life Companies other than Canadian Companies, 1923-1927.

Schedule.	1923.	1924.	1925.	1926.	1927.
	$	$	$	$	$
Canadian Companies—					
Unsettled claims	5,155,273	6,482,187	6,406,947	7,087,483	8,348,251
Net re-insurance reserve	529,435,479	622,176,733	688,566,082	778,056,671	870,467,629
Sundry liabilities	52,889,041	72,176,878	81,996,972	95,697,964	120,126,568
Total liabilities, not including capital	**587,479,793**	**700,835,798**	**776,970,001**	**880,842,118**	**998,942,448**
Surplus of assets, excluding capital	46,686,464	47,939,330	56,640,603	64,497,699	78,559,322
Capital stock paid up	6,721,830	7,031,495	7,097,339	7,969,758	8,450,152
British Companies[1]—					
Unsettled claims	251,212	285,782	236,845	187,069	262,875
Net re-insurance reserve	23,544,500	25,920,149	26,895,947	27,904,909	29,402,171
Sundry liabilities	431,479	391,967	306,040	416,055	336,505
Total liabilities, not including capital	**24,227,191**	**26,597,898**	**27,438,832**	**28,508,033**	**30,001,551**
Surplus of assets	21,156,768	20,520,886	21,931,001	22,822,019	21,759,750
Foreign Companies[1]—					
Unsettled claims	595,045	672,853	742,298	991,140	920,991
Net re-insurance reserve	154,180,278	171,215,976	194,375,549	218,743,028	243,876,209
Sundry liabilities	8,631,295	9,522,108	10,152,390	11,562,456	14,020,362
Total liabilities, not including capital	**163,406,618**	**181,410,937**	**205,270,237**	**231,296,624**	**258,817,562**
Surplus of assets	22,161,612	23,527,761	13,958,870	18,052,609	27,708,586

[1]Liabilities in Canada.

16.—Total Cash Income and Expenditure of Canadian Life Companies and Cash Income and Expenditure in Canada of Life Companies other than Canadian Companies, 1923-1927.

Schedule.	1923.	1924.	1925.	1926.	1927.
INCOME.	$	$	$	$	$
Canadian Companies[1]—					
Net premium income	105,786,116	124,110,368	145,924,473	166,433,775	189,773,972
Consideration for annuities	7,750,993	9,886,954	7,247,190	6,157,590	10,948,053
Interest and dividends on stocks, etc	33,734,038	39,725,833	45,073,444	50,416,764	56,917,760
Sundry items	3,389,070	8,673,490	7,710,585	8,820,741	16,000,473
Total cash income[1]	**150,660,217**	**182,396,645**	**205,955,692**	**231,828,850**	**273,640,258**
British Companies[2]—					
Net premium income	3,310,687	3,544,794	4,121,230	3,888,776	3,963,694
Consideration for annuities	–	2,430	5,403	–	–
Interest and dividends on stocks, etc	1,951,373	2,121,913	2,183,107	2,319,264	2,375,046
Sundry items	149,334	81,139	116,727	15,995	105,346
Total cash income[2]	**5,411,394**	**5,750,276**	**6,425,467**	**6,224,035**	**6,444,086**
Foreign Companies[2]—					
Net premium income	39,679,462	43,181,354	47,759,651	53,102,033	58,124,125
Consideration for annuities	39,761	61,071	380,216	232,734	217,076
Interest and dividends on stocks, etc	8,739,855	9,920,565	10,882,800	11,953,472	13,477,158
Sundry items	754,350	1,166,579	1,422,042	1,350,344	1,882,648
Total cash income[2]	**49,203,428**	**54,329,569**	**60,444,709**	**66,638,583**	**73,701,007**
EXPENDITURE.					
Canadian Companies[1]—					
Payments to policyholders	57,608,390	74,106,374	84,188,643	89,824,776	102,211,905
General expenses	32,200,264	38,927,764	44,662,767	49,873,563	56,660,787
Dividends to stockholders	754,940	1,190,401	1,014,267	2,350,621	1,532,455
Total expenditure[1]	**90,563,594**	**114,224,539**	**129,865,677**	**142,048,960**	**160,405,147**
Excess of income over expenditure	60,096,623	68,172,106	76,090,015	89,779,890	113,235,111
British Companies[2]—					
Payments to policyholders	2,201,844	2,092,468	2,908,182	2,385,677	2,771,207
General expenses	1,263,039	1,175,185	1,158,472	1,127,498	1,159,928
Dividends to stockholders	–	–	–	–	–
Total expenditure[2]	**3,464,883**	**3,267,653**	**4,066,654**	**3,513,175**	**3,931,135**
Excess of income over expenditure	1,946,511	2,482,623	2,418,813	2,710,860	2,512,951

[1]Includes income and expenditure on business outside of Canada. [2]Income and expenditure in Canada.

16.—Total Cash Income and Expenditure of Canadian Life Companies and Cash Income and Expenditure in Canada of Life Companies other than Canadian Companies, 1923-1927—concluded.

Schedule.	1923.	1924.	1925.	1926.	1927.
	$	$	$	$	$
EXPENDITURE—concluded					
Foreign Companies[1]					
Payments to policyholders	19,585,717	20,849,386	22,730,903	24,791,007	26,724,69
General expenses	9,539,231	11,160,050	12,480,333	13,355,165	14,679,64
Dividends to stockholders	–	–	–	–	–
Total expenditure[1]	**29,124,948**	**32,009,436**	**35,211,236**	**38,146,172**	**41,404,33**
Excess of income over expenditure	20,078,480	22,320,133	25,234,478	28,492,411	32,296,67

[1]Expenditure in Canada.

Life Insurance on the Assessment Plan.—Table 17 gives statistics of life insurance on the assessment plan, that is, insurance effected through fraternal or friendly societies by assessments on the members thereof and with annual dues to meet expenses. The statistics in the first part of this table relate to the 9 Canadian societies reporting to the Insurance Department of the Dominion Government *viz.*, the Alliance Nationale, the Ancient Order of Foresters, the Artisans Canadiens-Français, Canadian Woodmen of the World, the Catholic Mutual Benefit Association, the Commercial Travellers' Association of Canada, the Commercial Travellers' Mutual Insurance Society, the Independent Order of Foresters (whose statistics include sick and funeral departments), and The Grand Orange Lodge of British America.

Under an amendment to the Insurance Act, which became effective Jan. 1, 1920, it became necessary for all foreign fraternal societies previously transacting business in Canada under provincial licenses to obtain licenses under the Insurance Act, in order to be permitted to continue to issue new insurance in Canada. Sixteen such societies transacted business in 1926, *viz.*, the Ladies' Catholic Benevolent Association, the Maccabees, Royal Arcanum, Women's Benefit Association, Catholic Order of Foresters, the Workmen's Circle, Knights of Columbus, Association Canado-Américaine, Western Mutual Life Association, Knights of Pythias, the Jewish National Workers' Alliance, Brotherhood of American Yeomen, Expressmen's Mutual Benefit Association, National Fraternal Society of the Deaf, Women's Catholic Order of Foresters and the Sons of Zion.

17.—Life Insurance on the Assessment Plan, 1923-1927.

NOTE.—The figures are for Canadian business only.

Items.	1923.	1924.	1925.	1926.	1927.
CANADIAN COMPANIES.					
Number of certificates taken	14,620	15,184	17,796	13,309	15,47
Number certificates become claims	2,734	2,655	2,625	2,913	3,14
	$	$	$	$	$
Amount paid by members	2,764,717	2,677,531	2,685,091	2,861,498	3,104,1
Amount of certificates new and taken up	11,064,536	11,248,618	15,611,079	11,014,014	13,867,2
Net amount in force	132,021,670	127,279,426	130,318,622	135,723,963	135,093,70
Amount of certificates become claims	2,401,315	2,325,812	2,257,223	2,527,687	2,658,3
Claims paid	2,660,025	2,452,540	2,467,699	2,745,405	3,188,9
Unsettled claims—					
Not resisted	151,751	148,796	148,448	165,663	160,6
Resisted	–	–	500	–	1,0
Amount terminated by—					
Death	1,784,547	1,627,676	1,660,297	1,836,023	2,004,9
Surrender, expiry, lapse, etc	12,557,067	12,937,216	12,845,140	21,098,273	15,435,1
Total terminated	14,341,614	14,564,892	14,445,437	22,934,296	17,440,0

17.—Life Insurance on the Assessment Plan, 1923-1927—continued.

Items.	1923.	1924.	1925.	1926.	1927.
	$	$	$	$	$
CANADIAN COMPANIES—conc.					
Assets—					
Real estate	1,645,624	1,694,373	1,932,622	1,787,554	1,905,763
Loans on real estate	9,689,431	10,409,373	11,142,510	13,204,927	14,523,005
Policy loans (liens arising out of re-adjustment)	17,632,781	16,562,879	14,910,898	12,203,937	10,581,935
Stocks, bonds and debentures	26,258,923	27,073,594	28,546,970	31,913,034	32,535,354
Cash on hand and in banks	766,938	909,813	766,486	921,356	942,491
Interest and rent due and accrued	671,780	665,215	683,780	763,704	780,986
Dues from members	228,979	333,876	311,141	333,609	279,384
Other assets	4,742,555	4,002,001	3,752,062	3,612,092	3,615,306
Total assets[1]	**61,637,011**	**61,651,124**	**62,046,469**	**64,770,213**	**65,164,224**
Liabilities—					
Claims, unsettled	225,772	229,207	220,373	238,626	225,026
Reserves	56,668,441	56,779,165	56,641,355	59,585,420	60,059,878
Other liabilities	1,574,285	1,710,125	1,702,449	1,752,426	1,949,650
Total liabilities	**58,468,498**	**58,718,497**	**58,564,177**	**61,576,472**	**62,234,554**
Income—					
Assessments	5,458,882	5,390,522	5,446,621	5,702,431	6,014,340
Fees and dues	518,786	513,892	536,798	499,186	527,875
Interest and rents	2,892,389	2,914,928	2,929,356	3,060,006	3,254,759
Other receipts	147,506	149,009	345,681	138,978	145,065
Total income	**9,017,563**	**8,968,351**	**9,258,456**	**9,400,602**	**9,942,039**
Expenditure—					
Paid to members	5,287,997	5,024,174	5,120,737	5,470,254	5,817,002
General expenses	2,739,034	1,635,530	1,862,853	1,731,975	1,787,512
Total expenditure	**8,027,031**	**6,659,704**	**6,983,590**	**7,202,229**	**7,604,514**
Excess of income over expenditure	990,532	2,308,647	2,274,866	2,198,373	2,337,525
FOREIGN COMPANIES.					
Number of certificates taken	5,081	5,791	5,304	5,376	5,392
Number of certificates become claims	905	761	858	790	735
	$	$	$	$	$
Amount paid by members	1,216,173	1,261,571	1,184,988	1,178,880	1,102,829
Amount of certificates new and taken up	5,855,350	6,273,200	6,009,816	6,158,925	7,045,512
Net amount in force	56,092,389	56,493,302	55,238,069	57,544,334	56,961,015
Amount of certificates become claims	909,970	819,332	813,443	859,923	816,036
Claims paid	901,506	784,028	760,313	879,343	809,321
Unsettled claims—					
Not resisted	111,583	88,016	103,040	78,700	89,339
Resisted	–	1,500	1,000	–	
Amount terminated by—					
Death	823,964	691,458	712,327	755,148	727,272
Surrender, expiry, lapse, etc	8,072,330	5,920,202	6,410,806	4,727,145	7,538,906
Total terminated	8,896,294	6,611,660	7,125,633	5,482,293	8,266,178
Assets—					
Real estate	8,000	7,700	7,700	7,700	–
Loans on real estate	1,800	1,800	1,800	–	–
Policy loans (liens arising out of re-adjustment)	18,009	12,349	11,517	15,315	12,497
Stocks, bonds and debentures	763,807	1,199,132	1,378,070	1,602,099	1,804,502
Cash on hand and in banks	278,803	208,533	308,526	244,269	285,298
Interest and rent due and accrued	12,768	17,362	19,023	20,009	23,203
Dues from members	77,050	72,255	67,112	76,980	56,739
Other assets	74	–	85	3	36
Total assets	**1,160,311**	**1,519,131**	**1,793,833**	**1,966,375**	**2,182,275**
Liabilities—					
Claims, unsettled	116,651	100,975	109,278	84,993	94,749
Reserves	4,094,441	4,694,179	5,214,784	5,605,766	6,506,723
Due on account of general expenses	18,233	17,712	20,876	28,020	111,837
Other liabilities	3,131	3,252	2,021	7,163	3,408
Total liabilities	**4,232,456**	**4,816,118**	**5,346,959**	**5,725,942**	**6,716,717**

[1]The figure in the text is the book value; the market value of these assets was $61,430,888 in 1923, $62,324,974 in 1924, $62,430,337 in 1925, $65,563,639 in 1926 and $66,864,489 in 1927.

17.—Life Insurance on the Assessment Plan, 1923-1927—concluded.

Items.	1923.	1924.	1925.	1926.	1927.
FOREIGN COMPANIES—conc.	$	$	$	$	$
Income—					
Assessments	1,279,183	1,323,626	1,252,169	1,241,274	1,181,18
Fees and dues	267,515	272,382	239,315	245,096	309,5
Interest and rents	48,855	75,207	82,085	88,406	94,55
Other receipts	2,168	3,801	5,885	4,782	5,38
Total income	**1,597,721**	**1,675,016**	**1,579,454**	**1,579,558**	**1,590,65**
Expenditure—					
Paid to members	982,036	836,533	838,401	940,330	885,1
General expenses	131,669	154,591	135,688	174,421	205,6
Total expenditure	**1,113,705**	**991,124**	**974,089**	**1,114,751**	**1,090,7**
Excess of income over expenditure	484,016	683,892	605,365	464,807	500,0

Summary of Life Insurance in Canada, 1927.—In addition to the business transacted by life insurance companies incorporated by the Dominion Government to carry on business throughout the country, a considerable volume is also carried on by companies operating under provincial licenses or otherwise permitted by the provincial governments to carry on such transactions. Statistics of these provincial companies have been collected since 1915 by the Department of Insurance. Table **18,** showing policies issued and in force, premiums received and losses paid as at Dec. 31, 1927, summarizes the volume of business done by both life companies and fraternal societies as Dominion and provincial licensees in that year.

18.—Dominion and Provincial Life Insurance in Canada, 1927.

Business transacted by	New policies issued (gross).	Net in force Dec. 31.	Net premiums received.	Net death claims paid.
1. Dominion licensees—	$	$	$	$
(a) Life companies	954,028,987	5,044,408,834	174,731,364	37,952,97
(b) Fraternals	20,912,781	192,054,718	4,207,006	3,998,29
Total for Dominion Companies	**974,941,768**	**5,236,463,552**	**178,938,370**	**41,951,27**
2. Provincial licensees—				
(a) Provincial companies within provinces by which they are incorporated—				
(1) Life companies	10,397,342	47,795,278	1,475,514	278,08
(2) Fraternals	4,602,453	65,683,520	1,803,800	1,321,72
(b) Provincial companies in provinces other than those by which they are incorporated—				
(1) Life companies	4,804,211	18,270,593	530,228	144,21
(2) Fraternals	4,284,920	53,226,182	1,071,755	602,34
Total for Provincial Companies	**24,088,926**	**184,975,573**	**4,881,297**	**2,346,34**
Grand Total	**999,030,694**	**5,421,439,125**	**183,819,667**	**44,297,61**

Section 3.—Miscellaneous Insurance.

Since 1875 the growth of insurance business other than fire and life has been a steady one. The report of the Superintendent of Insurance for the calendar year 1880 shows that the number of companies duly licensed for the transaction of accident, guarantee, plate glass and steam boiler insurance—the only four classes of miscellaneous insurance then transacted—was 5, 3, 1 and 1 respectively. The same report for the year 1927 shows that miscellaneous insurance now includes in Canada accident, sickness, automobile, burglary, explosion, forgery, guarantee, hail, inland transportation, employers' liability, aviation, plate glass, sprinkler leakage, steam boiler, title, tornado, live stock insurance, etc. Whereas in 188

10 companies transacted business of this kind, such insurance was sold in 1927 by 196 companies, of which 42 were Canadian, 53 British and 101 foreign.

Accident Insurance.—The first license of this kind was issued to the Travelers Co., of Hartford, Conn., in 1868. The first license to a Canadian company was issued to the Accident Insurance Co. of Canada, which was organized in 1872 and commenced business in 1874. Much accident insurance has also been sold by companies doing primarily a life insurance business. Fifty-five companies transacted accident insurance in 1927.

Automobile Insurance.—This is now one of the most important branches of the miscellaneous class of insurance. Premiums increased from $80,446 in 1910 to $573,604 in 1915 and to $9,771,308 in 1927, with an increase in the number of companies from 7 to 126 during the 17-year period.

Plate Glass Insurance.—Policies were first sold in Canada by the Metropolitan Plate Glass Insurance Co., an American concern, which withdrew from Canada during 1882 to avoid business restrictions. The 58 companies operating in Canada in 1927 received premiums of $585,037 and paid claims of $208,616.

Burglary Insurance.—This type of insurance received but slight attention in Canada until 1918. In 1893, however, one company issued burglary policies. A second followed in 1905, and in 1910, 5 companies were operating, while at the end of 1927, 50 companies were reported as having sold this type of insurance during the year. The premium income of these companies amounted in 1927 to $985,485 and the losses paid amounted to $278,481.

Hail Insurance.—Insurance against hailstorms is a class of business of comparatively recent development in Canada. During the year 1927, 43 insurance companies undertook this class of risk, the premiums written amounting to $6,202,322 and the losses incurred to $6,347,205. The total premiums for the 18 years during which this business has been carried on in Canada amounted to $51,101,933 and the total losses paid to $34,085,777.

19.—Insurance other than Fire and Life, 1927.[1]

Types of Insurance.	Premiums received.	Losses incurred.	Unsettled Claims.	
			Not resisted.	Resisted.
	$	$	$	$
Guarantee (Fidelity)	1,090,756	334,433	178,202	82,163
Guarantee (Surety)	995,381	140,820	143,111	100,502
Personal Accident	3,040,566	1,253,700	410,826	30,579
Personal Accident and Sickness	1,765,914	967,115	187,304	8,874
Employers' Liability and Workmen's Compensation	3,663,335	3,044,384	1,334,030	142,477
Other Accident Insurance	1,139,502	420,872	207,606	13,905
Sickness	1,687,908	946,862	255,578	21,369
Burglary	985,485	278,481	70,724	19,876
Steam Boiler	452,945	26,606	12,560	3,923
Hail	6,202,322	6,347,205	1,007	–
Inland Transportation	596,318	465,886	280,013	1,508
Plate Glass	585,037	208,616	32,401	–
Automobile	9,771,308	6,265,854	1,986,716	181,551
Live Stock	82,179	72,570	11,273	23,500
Tornado	178,024	107,206	33,244	–
Earthquake	854	–	–	–
Forgery	47,845	4,052	6,352	–
Rain	37,174	29,331	432	–
Credit	298,678	154,090	69,915	3,000
Electrical Machinery	120,411	38,010	2,336	–
Fraud	14,505	4,419	123	–

[1]Dominion licensees only.

20.—Income and Expenditure and Assets and Liabilities of Canadian Companies doing only Insurance Business other than Fire and Life, 1927.

Companies.	Cash Income.	Cash Expenditure.	Excess of Income over Expenditure.	Assets.	Liabilities.[1]	Excess of Assets over Liabilities.
	$	$	$	$	$	$
Boiler Inspection	306,964	228,658	78,306	804,991	294,661	510,330
Canadian General	63,479	60,471	3,008	94,438	35,082	59,356
Canadian Surety	467,117	416,086	51,031	872,335	322,793	549,542
Chartered Trust	274,421	198,443	75,978	2,231,126[2]	1,628,929	602,197
Fidelity Insurance	231,861	195,443	36,418	450,273	125,480	324,793
T. Eaton General	18,930	6,298	12,632	107,094	144	106,950
Guarantee Co. of North America	788,405	644,416	143,989	3,870,134	1,142,591	2,727,543
London Life	78,072	196	77,876	77,875	392	77,483
Merchants and Employers	375,096	458,162	83,066	216,929	200,869	16,060
Merchants Casualty	764,347	803,043	38,696	454,685	361,651	93,034
North American Accident	170,755	220,565	49,810	354,915	76,004	278,911
Protective Association	410,282	396,861	13,421	297,048	138,756	158,292
Royal Guardians	4,801	5,175	374	16,764	5,044	11,720
Total	**3,954,530**	**3,633,817**	**320,713**	**9,848,607**	**4,332,396**	**5,516,211**

[1] Not including capital stock. [2] Including $922,422 loans on collateral.

21.—Income and Expenditure in Canada of Companies, other than Canadian, doing only Insurance Business other than Fire and Life, 1927.

Companies.	Income (Cash).			Expenditure (Cash).			Excess of Income over Expenditure.
	Premiums.	Interest and Dividends earned.	Total Cash Income.[1]	Net Losses incurred.	General Expenditure.	Total Cash Expenditure.[1]	
	$	$	$	$	$	$	$
Abeille	107,055	2,961	110,016	123,555	38,238	161,792	51,776
Ætna Casualty	51,980	3,531	55,511	45,461	87,800	133,261	77,750
American and Foreign	6,315	1,430	7,745	500	1,667	2,167	5,578
American Automobile	133,548	3,308	136,856	89,056	49,133	138,188	1,332
American Credit	209,478	9,558	219,061	101,741	124,795	226,536	7,475
American Surety	38,948	4,250	43,198	6,038	16,057	22,095	21,103
British and Foreign	394	5,990	6,384	–	210	210	6,175
Connecticut General	–	2,125	2,125	–	–	–	2,125
Constitution Indemnity	24,663	–	24,663	12,006	12,405	24,411	253
Continental Casualty	701,221	20,730	721,951	345,695	326,987	672,682	49,269
Employers' Indemnity	4,175	720	4,895	–	448	448	4,447
Federal	149,873	100	149,974	129,244	53,737	182,981	33,007
Fidelity and Casualty	262	14,175	14,436	–	2,089	2,089	12,347
General Casualty of Paris	7,172	5,146	12,318	2,477	25,894	28,370	16,052
General Exchange	288,842	7,589	296,664	140,877	37,907	178,784	117,880
General Indemnity	57	1,000	1,057	–	–	–	1,057
Hartford Accident	137,715	12,945	150,659	95,543	71,974	167,517	16,857
Hartford Live Stock	54,912	2,990	57,902	60,751	18,434	79,186	21,283
Hartford Steam Boiler	13,845	2,500	16,345	–	–	–	16,345
Indemnity Insurance	534,324	13,705	548,029	602,622	172,682	775,304	227,275
International Fidelity	6,508	–	6,508	1,504	625	2,129	4,379
Loyal Protective	304,466	5,292	310,993	151,636	142,877	294,513	16,480
Lumbermen's Mutual Cas'ty	78,558	2,408	80,966	40,784	16,661	72,579	8,387
Maryland Casualty	425,053	25,134	450,187	175,887	177,129	353,016	97,171
Metropolitan Casualty	49	4,469	4,518	–	343	343	4,175
Metropolitan Life	308,490	7,150	315,640	190,397	63,471	253,868	61,772
Monarch Accident	25,722	2,500	28,222	14,325	13,048	27,373	849
National Surety	306,674	19,452	329,154	98,743	162,268	261,012	68,142
New York Casualty	32,826	8,527	41,354	9,928	15,298	25,226	16,128
Preferred Accident	83,984	5,227	89,212	50,003	44,175	94,178	4,966
Prudential Insurance	357	–	357	151	191	342	15
Ridgely Protective	70,438	1,893	72,446	34,364	35,776	70,140	2,306
St. Paul Mercury	20,243	816	21,059	3,485	8,747	12,232	8,827
Standard Marine	2,588	500	3,088	311	534	845	2,243
Travelers Indemnity	406,712	21,737	428,449	206,831	182,603	389,434	39,015
Travelers Insurance	1,187,566	34,898	1,222,463	704,901	460,283	1,165,184	57,279
United States Fidelity and Guaranty	813,537	30,850	844,387	274,166	342,047	616,213	228,174
Western Casualty	39,531	–	39,531	17,905	25,102	43,007	3,476
Zurich	254,709	22,232	276,941	169,603	129,246	298,849	21,907
Total	**6,832,790**	**307,838**	**7,145,264**	**3,900,490**	**2,860,881**	**6,776,504**	**368,760**

[1] Including other items.

22.—Dominion and Provincial Insurance in Canada, other than Fire and Life, 1927.

NET PREMIUMS RECEIVED.

Classes of Business.	Dominion Licensees.	Provincial Licensees.			Grand Total.
		(a) Prov. Cos. within provinces by which they are incorp.	(b) Prov. Cos. in provinces other than those by which they are incorp.	Total Provincial Licensees.	
	$	$	$	$	$
Accident (1) Personal	3,040,566	16,681	1,717	18,398	3,058,964
(2) Employers' Liability and Workmen's Compensation	3,663,335	392,221	150,286	542,507	4,205,842
(3) Other	1,139,502	29,456	9,773	39,229	1,178,731
Accident and Sickness Combined	1,765,914	71,257	9,574	80,831	1,846,745
Automobile	9,771,308	261,164	129,144	390,308	10,161,616
Burglary	985,485	14,158	4,126	18,284	1,003,769
Credit	298,678	–	–	–	298,678
Earthquake	854	–	–	–	854
Electrical Machinery	120,411	–	–	–	120,411
Forgery	47,845	–	–	–	47,845
Fraud	14,505	–	–	–	14,505
Guarantee (Fidelity)	1,090,75[illegible]	51,309[1]	10,342[1]	61,651[1]	1,152,407
Guarantee (Surety)	995,381	[1]	[1]	–	995,381
Hail	6,202,322	83,433	–	83,433	6,285,755
Inland Transportation	596,318	2,259	175	2,434	598,752
Live Stock	82,179	–	–	–	82,179
Plate Glass	585,037	41,710	6,130	47,840	632,877
Rain	37,174	–	–	–	37,174
Sickness	1,687,908	8,976	4,276	13,252	1,701,160
Sprinkler[2]	24,566	–	–	–	24,566
Steam Boiler	452,945	–	–	–	452,945
Tornado	178,024	–	–	–	178,024
Weather	–	59,665	–	59,665	59,665
Total	**32,781,013**	**1,032,289**	**325,543**	**1,366,480[3]**	**34,147,493[4]**

NET LOSSES INCURRED.

Accident (1) Personal	1,253,700	8,073	2,303	10,376	1,264,076
(2) Employers' Liability and Workmen's Compensation	3,034,384	224,919	142,255	367,174	3,401,558
(3) Other	420,872	11,161	1,684	12,845	433,717
Accident and Sickness Combined	967,115	37,709	4,742	42,451	1,009,566
Automobile	6,265,854	126,252	109,321	235,573	6,501,427
Burglary	278,481	5,483	1,398	6,881	285,362
Credit	154,090	–	–	–	154,090
Earthquake	–	–	–	–	–
Electrical Machinery	38,010	–	–	–	38,010
Forgery	4,652	–	–	–	4,652
Fraud	4,419	–	–	–	4,419
Guarantee (Fidelity)	334,453	16,372[1]	−30[1]	16,342[1]	350,795
Guarantee (Surety)	140,820	[1]	[1]	[1]	140,820
Hail	6,347,205	44,471	–	44,471	6,391,676
Inland Transportation	465,886	1,771	250	2,021	467,907
Live Stock	72,570	–	–	–	72,570
Plate Glass	208,616	19,587	2,964	22,551	231,167
Rain	29,331	–	–	–	29,331
Sickness	946,862	1,383	1,569	2,952	949,814
Sprinkler[2]	3,363	–	–	–	3,363
Steam Boiler	26,606	–	–	–	26,606
Tornado	107,206	–	–	–	107,206
Weather	–	28,183	–	28,183	28,183
Total	**21,104,495**	**525,364**	**266,456**	**791,557[5]**	**21,902,052[6]**

[1]Provincial companies did not furnish a separation of guarantee figures.
[2]This business was transacted by a company not holding a license to transact fire insurance.
[3]Including $8,648 blanket residence.
[4]Including $8,648 blanket residence and excluding $2,209,901 premiums of Fraternal Benefit Societies for accident, sickness and funeral business.
[5]Including $5,737 blanket residence.
[6]Including $5,737 blanket residence and excluding $989,420 losses of Fraternal Benefit Societies for accident, sickness and funeral business.

Section 4.—Government Annuities.

In the early years of the 20th century, there arose throughout the civilized world a distinct movement in favour of ameliorating the living conditions of the less well-off members of society. One form which this movement took in the United Kingdom was that of old age pensions, granted by the State as a gift to its poorer citizens whose earnings were very generally insufficient to permit of a margin of saving. In Canada, where wages were higher and a margin of saving was possible, the movement took the form of providing, through the establishment of Government annuities, an absolutely safe investment for such savings, which had only too often been lost through the inexperience of their owners, leaving the latter a burden upon the charity of relatives or of the public.[1]

Under the Government Annuities Act, 1908 (7-8 Edw. VII, c. 5), as amended by an Act of 1925, His Majesty the King, represented by the Minister (at present the Minister of Labour), may sell to persons over the age of 5 years, domiciled or resident in Canada, immediate or deferred annuities of not less than $10 nor more than $5,000 (1) for the life of the annuitant, (2) for a term of years certain, not exceeding 20 years, or for the life of the annuitant, whichever period shall be the longer, or (3) an immediate or deferred annuity to any two persons domiciled in Canada during their joint lives, and with or without continuation to the survivor. The property and interest of any annuitant in any contract for an annuity is neither transferable nor attachable. The purchaser may contract that, in the event of the death of the annuitant before the date fixed for the annuity to begin, all money paid shall be refunded to the purchaser or his legal representatives with interest at the rate of 4 p.c. compounded yearly.

The Government Annuities Act was amended by c. 12 of the Statutes of 1925, reducing the minimum annuity purchasable from $50 to $10, so that single-premium cumulative annuities of $10 and multiples thereof may be purchased by any person at any time. It is considered that this amendment will make it possible for employers, instead of paying cash bonuses to their deserving employees in good years, to make provision for the old age of such employees by purchasing annuities of $10 or multiples thereof.

Statistics of the annuities in force for the last four years are given in Tables 23 and 24. From Sept. 1, 1908, to Mar. 31, 1928, 8,936 annuities had been issued. On Mar. 31, 1928, 2,951 immediate annuities and 4,962 deferred annuities were in force. The total value of these annuities on that date was $14,852,328 and the amount of annuities purchased was $2,769,956.

[1] A Dominion-provincial non-contributory scheme of old age pensions, providing for the payment to persons 70 years and over of pensions not exceeding $20 per month, contributed in equal parts by the Dominion and the provinces which become parties to the scheme, was enacted by chapter 35 of the Dominion Statutes of 1927. British Columbia, Manitoba and Saskatchewan have already taken advantage of this scheme, while Alberta and Ontario have also accepted the proposition. For further particulars, see page 750.

23.—Government Annuities Fund Statement, Mar. 31, 1925-1928.

Items.	Years ended Mar. 31,			
	1925.	1926.	1927.	1928.
ASSETS.	$	$	$	$
Fund at beginning of year	7,162,972	8,468,498	10,021,705	11,446,119
Receipts during the year, less payments	1,305,526	1,553,207	1,424,414	3,273,365
Fund at end of year	8,468,498	10,021,705	11,446,119	14,719,484
Amount to be transferred by Government to maintain Reserve	-	-	-	132,844
Total	-	-	-	**14,852,328**
LIABILITIES.				
Net present value of all outstanding contracts	8,445,884	10,016,826	11,392,980	14,852,328
RECEIPTS.				
For Immediate Annuities	1,263,195	1,572,675	1,520,794	3,156,877
For Deferred Annuities	343,627	373,302	374,633	702,185
Interest on Fund	300,502	358,367	414,680	493,965
Refunds	-	2,109	1,332	500
Total Receipts	**1,907,324**	**2,306,453**	**2,311,439**	**4,353,527**
PAYMENTS.				
Annuities paid under Immediate Contracts	591,827	729,677	864,787	1,043,766
Return of Premiums with interest	8,803	16,513	21,697	20,422
Return of Premiums without interest	1,168	7,055	541	15,974
Balance at end of year	1,305,526	1,553,207	1,424,414	3,273,365
Total Payments	**1,907,324**	**2,306,453**	**2,311,439**	**4,353,527**

24.—Valuation, on Mar. 31, 1927 and 1928, of Annuity Contracts issued pursuant to the Government Annuities Act, 1908.

Description of Contracts.	1927.			1928.		
	Number.	Amount of Annuities.	Total value on Mar. 31, 1927, of Annuities purchased.	Number.	Amount of Annuities.	Total value on Mar. 31, 1928, of Annuities purchased.
		$	$		$	$
1—Immediate Annuities	1,566	653,740	5,186,619	1,852	831,474	6,753,605
2—Guaranteed Annuities	640	160,690	1,506,296	774	235,478	2,416,183
3—Last Survivor Annuities	268	140,673	1,512,116	325	172,862	1,887,117
4—Deferred Annuities	4,355	1,193,223	3,187,949	4,962	1,530,142	3,795,423
Total	**6,829**	**2,148,326**	**11,392,980**	**7,913**	**2,769,956**	**14,852,328**

PART III.—COMMERCIAL FAILURES.

Commercial Failures in Canada, 1928.—According to Bradstreet's of January, 1929, the total number of Canadian failures reported during the calendar year 1928 was 1,863, with liabilities of $36,451,242, as against 1,993, with liabilities of $25,846,247, in 1927. In number there was a decrease in 1928 of 6½ p.c. as compared with 1927, while the liabilities increased by 14·1 p.c. Dun's Review of January, 1929, gives the total number of insolvencies in Canada and Newfoundland in 1928 as 2,120, as compared with 2,182 in 1927, whilst liabilities reached, in 1928, the total of $53,420,199, as compared with $34,461,595 in 1927. Tables 1 to 4 give

statistics from both authorities, those from Bradstreet's (in Table 1) being classified by provinces for the calendar year 1927 and 1928, and those from Dun's Review by branches of business for the calendar years 1926 to 1928 (Table 2), and by classes and provinces for the calendar year 1928, with totals for the years 1914 to 1927 in Table 3. An analysis by causes of failures is given for 1927 and 1928 in Table 4 (Bradstreet's).

1.—Commercial Failures in Canada, by Provinces, for the calendar years 1927 and 1928. [From Bradstreet's].

Provinces.	Number of Failures.		Assets.		Liabilities.	
	1927.	1928.	1927.	1928.	1927.	1928.
	No.	No.	$	$	$	$
Prince Edward Island	4	3	10,380	21,250	23,548	29,200
Nova Scotia	65	76	653,891	997,005	1,125,938	1,846,818
New Brunswick	42	30	300,599	340,558	509,713	531,410
Quebec	729	730	3,861,488	5,389,363	10,436,767	13,990,295
Ontario	648	612	3,709,827	5,343,083	8,550,653	15,022,266
Manitoba	201	183	540,412	1,075,006	1,703,615	2,831,125
Saskatchewan	130	78	574,299	327,817	1,110,228	652,166
Alberta	62	86	463,835	292,483	938,815	766,976
Briti h Columbia	112	65	502,352	396,087	1,446,970	780,986
Canada	**1,993**	**1,863**	**10,617,083**	**14,182,652**	**25,846,247**	**36,451,242**

2.—Commercial Failures in Canada and Newfoundland, by Branches of Business, 1926-1928 [From Dun's Review].

Branches of Business.	1926.		1927.		1928.	
	No.	Liabilities.	No.	Liabilities.	No.	Liabilities.
Manufacturers—		$		$		$
Iron and foundries	4	29,216	8	433,703	7	1,547,459
Machinery and tools	24	1,032,100	19	246,274	21	348,162
Woollens, carpets, etc	5	121,800	6	338,806	9	263,426
Cotton, hosiery, etc	–	–	–	–	–	–
Lumber, carpenters	80	2,636,850	107	4,622,537	95	3,565,257
Clothing, millinery	98	2,457,752	74	898,890	87	1,144,401
Hats, gloves and furs	7	689,826	13	157,500	18	526,745
Chemicals and drugs	12	122,712	12	81,851	8	221,055
Paints and oils	1	2,250	1	5,016	–	–
Printing and engraving	14	243,758	19	221,624	14	348,443
Milling and bakers	32	308,777	25	209,908	30	676,064
Leather, shoes, etc	13	398,500	18	228,586	20	2,015,260
Liquors and tobacco	4	104,700	6	542,823	9	380,479
Glass, earthenware	9	725,700	8	560,596	7	707,707
All other	224	7,591,813	186	6,799,287	181	5,288,525
Total Manufacturers	**527**	**16,465,754**	**502**	**15,347,401**	**506**	**17,032,983**
Traders—						
General stores	199	2,561,312	199	2,328,858	150	1,855,062
Groceries and meats	290	2,017,048	395	2,082,119	396	2,432,410
Hotels, restaurants	110	1,074,883	106	700,111	93	1,287,405
Liquors and tobacco	25	89,269	27	112,127	28	144,682
Clothing, furnishings	181	2,220,786	190	2,161,323	195	2,250,828
Dry goods and carpets	137	1,962,008	142	2,222,385	138	8,382,742
Shoes, rubbers and trunks	69	1,559,016	69	816,072	59	1,025,825
Furniture, crockery	27	299,706	30	528,485	27	532,703
Hardware, stoves and tools	62	897,000	44	676,822	50	564,678
Chemicals and drugs	37	256,800	36	269,040	44	325,503
Paints and oils	6	165,500	1	800	1	590,932
Jewelry and clocks	39	245,581	41	177,027	31	587,527
Books and papers	13	62,100	14	206,704	17	228,270
Hats, furs and gloves	16	246,100	17	295,670	29	1,009,862
All other	237	3,663,796	238	3,989,256	211	3,322,502
Total Traders	**1,548**	**17,320,905**	**1,544**	**16,566,799**	**1,469**	**24,540,931**
Agents and Brokers	**121**	**3,296,223**	**136**	**2,547,395**	**145**	**11,846,285**
Grand Total	**2,196**	**37,082,882**	**2,182**	**34,461,595**	**2,120**	**53,420,199**

3.—Commercial Failures in Canada, by Provinces and Classes, for 1928, with totals for 1914-1927 [From Dun's Review].

NOTE.—Newfoundland included in totals, 1914-1928.

Provinces.	Total Commercial.			Manufacturing.	
	No.	Assets.	Liabilities.	No.	Liabilities.
		$	$		$
Prince Edward Island	5	33,091	70,183	–	–
Nova Scotia	67	688,445	2,236,147	8	854,031
New Brunswick	41	310,614	597,941	5	178,473
Quebec	933	19,344,306	27,866,827	273	10,887,520
Ontario	585	11,114,909	15,732,560	133	2,922,098
Manitoba	160	2,025,878	2,651,028	22	355,209
Saskatchewan	96	509,642	737,092	8	37,860
Alberta	74	449,751	574,286	15	246,700
British Columbia	139	1,702,904	2,429,843	40	1,540,592
Total, 1928	**2,120**	**36,407,391**	**53,420,199**	**506**	**17,032,983**
Newfoundland	20	227,851	524,292	2	10,500
Total 1927	2,182	24,420,941	34,461,595	502	15,347,401
" 1926	2,196	25,668,509	37,082,882	527	16,465,754
" 1925	2,371	32,651,834	45,767,825	563	24,046,514
" 1924	2,474	47,937,427	64,530,975	625	36,542,658
" 1923	3,247	46,833,195	65,810,382	792	31,791,332
" 1922	3,695	63,097,789	78,068,959	857	39,080,791
" 1921	2,451	57,158,397	73,299,111	559	33,976,790
" 1920	1,078	18,569,516	26,494,301	255	15,871,216
" 1919	755	10,741,441	16,256,259	213	10,234,477
" 1918	873	11,251,341	14,502,477	232	8,248,807
" 1917	1,097	13,051,900	18,241,465	261	7,455,094
" 1916	1,685	19,670,542	25,069,534	363	8,796,646
" 1915	2,661	39,526,358	41,162,321	655	13,877,414
" 1914	2,898	30,909,563	35,045,095	614	11,063,191

Provinces.	Trading.		Other Commercial.		Banking.	
	No.	Liabilities.	No.	Liabilities.	No.	Liabilities.
		$		$		$
Prince Edward Island	5	70,183	–	–	–	–
Nova Scotia	57	680,616	2	701,500	–	–
New Brunswick	34	417,456	2	2,012	–	–
Quebec	593	8,881,590	67	8,097,717	–	–
Ontario	416	10,168,590	36	2,641,872	–	–
Manitoba	126	2,131,378	12	164,441	–	–
Saskatchewan	82	655,732	6	43,500	–	–
Alberta	53	320,086	6	7,500	–	–
British Columbia	86	704,451	13	184,800	–	–
Total, 1928	**1,469**	**24,540,931**	**145**	**11,846,285**	–	–
Newfoundland	17	510,849	1	2,943	–	–
Total 1927	1,544	16,566,799	136	2,547,395	–	–
" 1926	1,548	17,320,905	121	3,296,223	–	–
" 1925	1,693	19,514,049	115	2,207,262	–	–
" 1924	1,720	21,324,089	129	6,664,228	1	100,000
" 1923	2,319	31,339,763	136	2,679,287	1	18,500,000
" 1922	2,717	33,004,203	121	5,983,965	4	222,480
" 1921	1,739	29,886,569	153	9,435,752	1	45,233
" 1920	771	7,704,505	52	2,918,580	–	–
" 1919	494	4,475,628	48	1,546,154	–	–
" 1918	590	5,142,397	51	1,111,273	–	–
" 1917	777	8,417,239	59	2,369,132	–	–
" 1916	1,237	12,290,368	85	3,982,520	–	–
" 1915	1,888	21,696,890	118	5,558,017	1	150,000
" 1914	2,164	18,677,935	120	5,303,968	1	250,000

4.—Causes of Failures in Canada and the United States, by Numbers and Percentages, years ended Dec. 31, 1927 and 1928 [From Bradstreet's].

CANADA (including Newfoundland and St. Pierre-Miquelon).

Failures due to	Number.		Assets.		Liabilities.	
	1927.	1928.	1927.	1928.	1927.	1928.
	No.	No.	$	$	$	$
Incompetence	528	430	1,431,273	1,272,130	4,100,048	3,331,683
Inexperience	144	92	192,851	207,324	832,032	637,611
Lack of capital	704	708	4,511,651	7,296,676	10,387,616	19,420,119
Unwise credits	96	114	545,420	585,997	1,691,185	2,073,842
Failures of others	13	8	535,222	375,021	681,755	659,829
Extravagance	13	10	49,621	130,341	164,048	300,305
Neglect	34	35	65,782	175,560	236,770	988,867
Competition	160	151	775,424	574,684	2,462,425	2,133,341
Specific conditions	268	263	2,145,988	3,435,377	4,340,262	6,249,426
Speculation	12	9	105,124	93,723	369,728	179,808
Fraud	44	53	310,445	188,294	1,022,393	562,746
Total	**2,016**	**1,873**	**10,668,801**	**14,335,127**	**26,288,262**	**36,537,566**

UNITED STATES.

Incompetence	6,990	6,396	74,388,781	48,883,262	133,177,786	97,902,345
Inexperience	1,047	984	6,134,763	5,833,150	33,962,386	11,832,584
Lack of capital	7,071	7,290	132,588,063	90,071,735	215,136,492	178,348,968
Unwise credits	284	261	18,536,945	7,690,995	28,869,043	11,925,583
Failures of others	274	272	18,012,709	11,721,274	26,054,977	19,215,418
Extravagance	93	70	840,305	823,634	2,241,222	1,593,149
Neglect	229	160	1,261,951	909,164	2,616,032	2,093,912
Competition	495	736	4,399,807	4,971,443	10,305,940	12,253,483
Specific conditions	2,993	3,613	112,741,231	99,822,220	169,152,210	162,690,356
Speculation	54	47	6,107,664	1,235,800	7,314,832	3,141,233
Fraud	737	544	9,766,642	7,098,521	24,300,005	17,091,667
Total	**20,267**	**20,373**	**385,048,861**	**279,061,198**	**653,130,925**	**518,088,698**

PERCENTAGES OF NUMBER OF FAILURES AND LIABILITIES, CLASSIFIED BY CAUSES.

Failures due to	Canada.				United States.			
	Number.		Liabilities.		Number.		Liabilities.	
	1927.	1928.	1927.	1928.	1927.	1928.	1927.	1928.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Incompetence	26·2	23·0	15·6	9·1	34·5	31·4	20·4	18·9
Inexperience	7·2	4·9	3·2	1·7	5·2	4·8	5·2	2·3
Lack of capital	34·9	37·8	39·5	53·1	34·9	35·8	32·9	34·4
Unwise credits	4·8	6·1	6·4	5·7	1·4	1·3	4·4	2·3
Failures of others	0·6	0·4	2·6	1·8	1·3	1·3	4·0	3·7
Extravagance	0·6	0·5	0·6	0·8	0·5	0·4	0·4	0·3
Neglect	1·7	1·9	0·9	2·7	1·1	0·8	0·4	0·4
Competition	7·9	8·1	9·4	5·8	2·4	3·6	1·6	2·4
Specific conditions	13·3	14·0	16·5	17·3	14·8	17·7	25·9	31·4
Speculation	0·6	0·5	1·4	0·5	0·3	0·2	1·1	0·6
Fraud	2·2	2·8	3·9	1·5	3·6	2·7	3·7	3·3

Assignments under the Bankruptcy and Winding Up Acts.—Under the Bankruptcy and Winding Up Acts (R.S.C., 1927, cc. 11 and 213), certain documents relating to all assignments have since 1920 been forwarded to the Dominion Statistician for statistical analysis. Table 5 gives the resulting figures of failures by provinces in 1922 and subsequent years, while Table 6 classifies them by branches of business. Table 7 gives the assets and liabilities of the assignors.

5.—Commercial Failures in Canada, by Provinces, calendar years 1922 to 1928.

Years.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total.
1922	15	121	131	1,589	1,058	284	272	299	156	3,925
1923	16	155	67	1,181	970	258	280	323	158	3,408
1924	3	69	67	907	835	100	131	150	57	2,319
1925	4	71	67	758	721	85	77	139	74	1,996
1926	4	63	74	654	655	84	68	113	58	1,773
1927	4	66	74	658	681	97	54	135	72	1,841
1928	4	90	56	767	758	103	63	126	70	2,037

6.—Commercial Failures in Canada, by Branches of Business, calendar years 1924 to 1928.

Years.	Trade.	Manufactures.	Agriculture.	Logging, Fishing.	Mining.	Construction.	Transportation and Public Utilities.	Finance.	Service.	Not classified.	Total.
1924	1,317	329	204	14	22	44	36	8	129	216	2,319
1925	1,026	403	158	14	15	50	21	5	220	84	1,996
1926	805	390	135	27	20	52	34	1	225	84	1,773
1927	818	430	116	30	26	63	36	–	243	79	1,841
1928	884	505	108	31	23	70	45	5	263	103	2,037

7.—Estimated Assets and Liabilities of Commercial Failures in Canada, calendar years 1922 to 1928.

Years.	Estimated grand total assets.	Estimated grand total liabilities.
	$	$
1922	52,336,488	63,692,219
1923	62,127,489	61,617,527
1924	43,194,035	48,105,397
1925	26,968,371	32,153,697
1926	24,676,661	32,291,125
1927	23,197,894	30,634,469
1928	26,583,462	32,455,437

CHAPTER XXIII.—EDUCATION.

Throughout the Dominion of Canada public education is a matter of provincial concern. Before Confederation, the maritime colonies were separated from Ontario by French-speaking Quebec, and in each of these an educational system specially adapted to the local conditions had come into existence. When Confederation was under consideration, the protection of existing vested rights was the predominant consideration. As a result, section 93 of the British North America Act, which embodies the Canadian constitution in so far as that constitution is a written one, provides that in and for each province the Legislature may exclusively make laws in respect of education, except that "nothing in any such law shall prejudicially affect any right or privilege with respect to denominational schools which any class of persons have by law in the province at the union".

Inasmuch as the administration of public education is one of the chief functions of Provincial Governments, there is in each of the provinces except Quebec a Department of Education administered either by a member of the Provincial Executive Council or by the Executive Council as a whole. In practice, however, the routine administration is in the hands of the permanent officials of the Department of Education, who are members of the permanent civil service. In Quebec the Superintendent of Education, appointed by the Government, is *ex-officio* President of the Council of Public Instruction; the link between the Department of Public Instruction and the Government is the Provincial Secretary; there are also two deputy heads, called the French and English Secretaries of the Department.

Since the Departments of Education are permanent authorities, controlled as to details of administration by permanent officials, educational policy is relatively permanent; further, the control of the Governments over education throughout the provinces is relatively stronger than in the United States. A capable Deputy Minister or Superintendent of Education impresses his personality and his views upon the whole system of his province, especially as in practice he controls the payment of Government grants, which constitute an important part of the revenues applied to educational purposes. (In 1927, out of a total expenditure on public general education in Canada amounting to $125,876,375, $17,376,342 came from the Provincial Governments.)

The Department of Education in each province naturally has its headquarters at the capital of the province. Its local representatives are the school inspectors who, in all provinces except Ontario, are appointed and paid by the Government; in Ontario high and separate school inspectors are appointed and paid by the Government, while public school inspectors, except in the unorganized districts, are appointed by the county or city municipality from among the persons recognized by the Department of Education as qualified for such appointment, and after appointment receive a part of their salary from the municipality and a part from the province.

Education in Quebec.—In Quebec there are two distinct systems of education, in each of which the teaching of religion takes a prominent position—the Protestant and the Roman Catholic systems. In the former, which is under the control of the Protestant Committee of the Council of Public Instruction, with a English Secretary, the curriculum and the general system of education is similar to that in the other provinces, except that the highest grade is Grade XI, from which students are matriculated to McGill University and Bishop's College, the two Protestant English-speaking universities of the province.

In the Roman Catholic schools, which are mainly French-speaking as the Protestant schools are English-speaking, the administration is in the hands of the

Catholic Committee of the Council of Public Instruction, with a French Secretary. General elementary and continuation or "complementary" training is given by means of a curriculum, extending over a preparatory course of six "years" of an elementary course and two "years" of a complementary course. Some of these "years" require more than a year to complete, the work of the "eighth year" corresponding in a general way to the work of Grade X, as that work is usually defined.

Recent Developments in Education.—In recent years there has been a tendency to lengthen the period of compulsory attendance and to enforce the law. This tendency has been most marked in Ontario, where in 1919 an Act was passed providing:—(1) that children 8 to 14 must attend full time and that children from 5 to 8, once enrolled, must attend full time to the end of the school term for which they are enrolled; (2) that adolescents from 14 to 16 who have not attained university matriculation standing must attend full time; those exempted owing to circumstances requiring them to go to work must attend part-time classes during the working day for 400 hours a year in municipalities providing part-time courses, which all municipalities of 5,000 population and upwards must do from September, 1922, smaller municipalities having an option in the matter. Further, those who had not attended full time up to 16 were required, after September, 1923, to attend 320 hours a year of part-time courses up to age 18. In other words, an Ontario adolescent has the alternative of full-time attendance to 16 or full-time attendance to 14 plus part-time attendance to 18. The operation of this Act has greatly increased the attendance in Ontario secondary schools.

Further, as a result of the keeping of children in school to a more advanced age, increasing attention has naturally been devoted to technical education of various kinds, especially as required by those students who are not adapted to higher intellectual work. The number taking technical training of some kind or other is rapidly increasing. Details are given in Section 2 of this chapter, dealing with "Vocational and Technical Education".

Statistics of General Education.—The statistical tables on education in Canada commence with a statistical summary (Table 1), which shows that in the academic year ended in 1927 there were 2,291,763 pupils in attendance at educational institutions in Canada, or 24·1 p.c. of the estimated 1927 population. Of the above, 2,022,729 were enrolled in ordinary day schools under public control, the average daily attendance numbering about 1,576,728. Those attending vocational schools—agricultural, commercial, industrial and other technical schools—numbered 102,668. There were 18,494 students in private business colleges, and 71,468 in other private schools under college grade. University students in regular courses numbered 26,431 and college students in regular courses 6,642. Students in classical colleges numbered 10,430.

There were, in 1927, 66,004 teachers in schools under public control, 12,859 males and 53,145 females. The total expenditure on schools under public control was $125,876,375, of which governments contributed $17,376,342 and local taxation most of the balance.

The balance of this chapter of the Year Book is divided into four sections dealing respectively with elementary and secondary education, vocational and technical education, higher education and miscellaneous education activities. More detailed statistics are published annually in the "Annual Survey of Education in Canada" prepared in the Education Statistics Branch of the Bureau of Statistics. Copies may be obtained from the Dominion Statistician.

71120—57½

1.—Summary of Education in Canada

NUMBER OF PUPILS ATTENDING

No.	Type of Institution.	P.E.I.	N.S.	N.B.
1	Ordinary Day Schools under Public Control	17,210	112,556	80,6[illegible]
2	Agricultural, Commercial, Industrial and other Technical Schools, including all evening schools	581	3,535[4]	3,0[illegible]
3	Schools for teacher-training	243	934[12]	41[illegible]
4	Indian Schools	25	284	25[illegible]
5	Schools for the blind and deaf	17[21]	219	6[illegible]
6	Business Colleges (private)	–	489	32[illegible]
7	Private Elementary and Secondary Schools	444	981	65[illegible]
8	Preparatory courses at Universities and Colleges	46	249	18[illegible]
9	Short, special and correspondence courses at Universities and Colleges	32	49	11[illegible]
10	Classical colleges	–	–	–
11	Affiliated, professional and technical colleges (regular courses)	–	236	–
12	Universities (regular courses)	83[32]	1,445	74[illegible]
	Grand total (excluding duplicates)	**18,681**	**120,977**	**86,48[illegible]**
	Population in 1921	**88,615**	**523,837**	**387,87[illegible]**
	Population in 1926	–	–	–
13	Elementary grades[34]	16,074	101,550	77,372[illegible]
14	Secondary and higher grades[34]	2,160	15,939	7,290[illegible]

[1]Including 498,065 in primary schools and approximately 4,300 in nursery schools under control of commissioners and trustees. [2]Including public, separate, continuation and high schools and collegiate institutes all day courses—figures of calendar year 1926 for the public and separate schools and of the school year 1926–27 for the other schools. [3]Includes only schools under public control. [4]Including all the students of the Technical College except those following regular degree courses and including 45 m. and 116f. in the Victoria College of Art, Halifax. [5]Including 1,226 in day and 1,792 in evening technical schools. [6]Including 5,490 in night schools, 2,369 in dressmaking schools, 5,034 in schools of arts and trades and 38 in ranger[5]s school—figures of 1925–26. [7]Including 17,329 in day full time courses, 2,72[illegible] in day part time courses, 1,626 in day special courses, and 37,434 in evening courses at industrial, technical and art schools, 2,442 in night elementary schools and 2,952 in night high schools—figures of 1926-27. [8]Including 2,155 in day and 1,232 in correspondence and evening technical schools. [9]Including 755 in day and 939 in evening technical schools. [10]Including 2,034 in day and 2,107 in evening technical schools and 212 in correspondence department. [11]Including 3,272 in day, 5,176 in evening and 209 in correspondence vocational courses. [12]Including 300 in normal college. and 634 in University and summer training courses. [13]Including 344 in normal school and 72 in vocational teacher-training courses. [14]Including normal schools, 2,034, model schools, 137, vocational teacher-training, 75, over and above extramural students not counted and excluding 240 in the College of Education who are included with Universities. [15]In normal schools, not including 774 who are included under item 9. [16]Excluding duplicate with Universities. [17]Not including a number who are entered under item 9. [18]Including regular normal schools 335, vocational teacher-training 50, but not including departmental summer schools for 364 teachers or 500 who are included under item 9. [19]Not added in the totals of Quebec or the grand total of all schools below as it is not certain whether or not they are included elsewhere. [20]The total includes 264 in Northwest territories and 250 in Yukon. [21]In institutions at Halifax, N.S., but supported by the province. [22]Including 507 blind and 1,217 deaf. [23]Including 54,767 in "independent primary schools" (*i.e.*, independent of the control of commissioners and trustees) and approximately 919 in independent nursery schools. [24]Included with the figures of classical colleges and private schools. [25]Exclusive of courses included in item 2. [26]Including 1,334 in evening courses at technical schools; 389 in special courses at technical schools; 378 in short courses at agricultural colleges and 380 at evening and correspondence courses in the school of H.C.S. [27]Including classical colleges 9,712 and classical independent schools 718. [28]Including 281 in dairy schools, 718 in regular courses at the technical schools, 125 in regular courses at the college of agriculture, 111 in regular courses at the school of H.C.S., 501 in independent schools where superior education is given, 1,105 in the schools of fine arts, 126 in Polytechnical School, 209 in Protestant Theological colleges, 836 in Monument National School and 60 in School for Historic Guides, 1925-26. [29]Not including degree courses which are included under items 11 and 12. [31]Excluding preparatory and short

by Provinces, 1927, or Latest Year Reported.

EDUCATIONAL INSTITUTIONS.

Quebec.	Ontario.	Manitoba.	Sask.	Alberta.	B.C.	Totals.	No.
502,365[1]	686,285[2]	148,763	218,560	151,292[3]	105,008	2,022,729	1
12,931[6]	64,512[7]	3,387[8]	1,694[9]	4,353[10]	8,657[11]	102,668	2
1,854	2,276[14]	640[15]	1,514	712[17]	385[18]	8,974	3
(1,460)[19]	3,787	2,229	1,890	1,396	2,872	14,710[20]	4
670	416	100	71	47	83	1,724[22]	5
(3,042)[19]	8,610	3,128	468	2,250	179	18,494	6
55,686[23]	6,246	592	2,664	3,088	1,108	71,468	7
[24]	2,707	173	29	134	67	3,586	8
2,481[26]	1,712[29]	1,255	1,108[37]	986[25]	667	8,409	9
10,430[27]	–	–	–	–	–	10,430	10
4,072[28]	1,528	487[16]	58	37	224	6,642	11
6,875[31]	10,781	2,403	1,278	1,236	1,582	26,431	12
597,364	**788,860**	**163,157**	**229,334**	**165,531**	**120,832**	**2,291,763**[33]	
2,361,199	**2,933,662**	**610,118**	**757,510**	**588,454**	**524,582**	**8,788,483**	
–	–	**639,056**	**821,042**	**607,584**	–	–	
540,364[36]	623,534	137,752	202,202	139,212	94,903	1,932,963	13
57,000	123,098	24,155	26,122	23,955	20,429	300,149	14

courses and such other figures as have already been included in items 10 and 11. [32]All these are of university standard. [33]Excluding business colleges and Indian schools in Quebec and including Indian schools in N.W.T. and Yukon. [34]In calculating the numbers in elementary and secondary grades, night, special and part-time technical schools and schools for the blind and deaf are left out of the reckoning, except where the night schools were known to be high schools. The numbers in elementary grades in public and private ordinary schools, also in Indian schools are known. Business college courses are assumed to be of secondary rank, also preparatory and short courses at universities and colleges, except in the case of certain affiliated schools in Ontario where allowance was made for the number in elementary grades. The regular courses are clearly of higher grade than secondary. [35]Approximately. Since Grade VIII in New Brunswick includes high school subjects, the enrolment in this grade (about 3,357) might be added to item 14 and deducted from item 13 in which case the number in elementary grades would read 74,015 and in secondary and higher grades 10,647. [36]Approximately. [37]Not including over 19,000 in extension courses in agriculture.

General Note—

To avoid the confusion that would result from giving totals different from those given in the provincial reports the figures of 1926 are used throughout for Quebec. In all cases except the primary and nursery schools the figures of 1927 are also published in the provincial reports, although the 1926 figures are used in making up their summary. The 1927 figures for each of the items in the above table except items 1 and 7 are as follows:—

Technical and night. (See item 2)	14,150
Normal schools	1,884
Blind and deaf. (See item 5)	703
Classical colleges. (See item 10)	10,547
Short, special, etc. (See item 12)	3,163
Affiliated colleges, etc. (See item 11)	5,580
Universities. (See item 12) (Approx.)	7,130

Further, to avoid confusion, the short courses for teachers at universities and colleges are entered under item 9 instead of item 3. There were about 2,000 teachers in these short courses who might be added to the 8,720 in item 3, making about 10,600 in all in teacher-training. There were in all about 66,000 teachers in Canada.

1.—Summary of Education in Canada, by Provinces,

DISTRIBUTION AND ATTENDANCE OF PUPILS IN

No.	Items.	P.E.I.	N.S.	N.B.
1	Number of boys enrolled	8,654	55,890	39,81
2	Number of girls enrolled	8,556	56,666	40,8
3	Number of pupils in graded schools	6,298	73,066	42,5
4	Number of pupils in ungraded schools	10,912	39,510	38,09
5	Average daily attendance	11,779	81,426	60,47
6	Average (median) number of days each pupil attended during year	151	160	
7	Average number of days schools were open during year	195	194	19
8	Percentage of total attendance in average attendance	68·4	72·3	74·9

TEACHERS, ACCOMMODATION AND EXPENDITUR

No.	Items.	P.E.I.	N.S.	N.B.
1	Teachers in schools under public control	615	3,305	2,5
2	Male teachers	140	269	25
3	Female teachers	475	3,036	2,28
4	Number of school districts	473	1,769	1,43
5	Number of school houses	473	–	–
6	Number of class-rooms in operation	615	3,113	2,31
7	Number of rural schools	418	1,434	1,28
8	Average number of pupils to a class-room	28	36	
9	Total expenditure on education $	458,477	3,605,401	3,071,31
10	Total expenditure on education by governments $	284,313	688,081[16]	445,014
11	Total expenditure on education by ratepayers, etc. $	174,164	2,917,320	2,626,30
12	Expenditure on teachers' salaries $	350,116[17]	–	

[1]Unspecified by sex in Sask., 79. [2]Including independent as well as controlled primary school [3]Including day elementary and secondary schools; the latter include day vocational full time pupils. [4](these 38 were high schools. [6]Primary schools under control and independent. [7]The financial ite in Ontario include day and evening vocational schools. [8]"Districts". The number of municipaliti was 1,812. Schools under control only. [9]Estimate only. There were 5,652 rural public school section 26 cities and 140 towns with public, and 25 cities, 74 towns and 434 rural separate schools; 157 village publ and 22 village separate schools assumed to represent so many districts; 207 continuation schools; 182 citi and towns with high schools and collegiate institutes. Assuming that each city and town and eac

1927, or Latest Year Reported—concluded.

ORDINARY DAY SCHOOLS UNDER PUBLIC CONTROL.

Quebec.	Ontario.	Manitoba.	Sask.	Alberta.	B.C.	Total.	No.
271,830[2]	355,819[3]	–	110,013[1]	76,901[2]	52,902	971,822	1
281,002[2]	347,795[3]	–	108,468[1]	77,479[2]	52,106	972,949	2
–	462,058[3]	–	92,077	80,438	50,453	–	3
–	241,556[3]	–	126,483	73,942	54,555	–	4
443,255	512,175[3]	106,793	157,392	115,125	88,306	1,576,728	5
–	–	162	161	160	–	–	6
–	–	191	192	188	–	–	7
80·2	72·8	71·8	72·0	75·2	84·1	75·0	8

IN SCHOOLS UNDER PUBLIC CONTROL.

Quebec.[6]	Ontario.[7]	Manitoba.	Sask.	Alberta.	B.C.	Total.	No.
19,588	18,842[3]	4,096	8,114	5,380	3,531	66,004	1
3,324	3,506[3]	821	2,141	1,509	899	12,859	2
16,264	15,336[3]	3,275	5,973	3,871	2,632	53,145	3
7,661[8]	6,919[9]	2,619[10]	4,728[11]	3,442[10]	761	29,357	4
7,892	7,555	2,000	–	–	1,074	–	5
16,000[13]	17,500[13]	3,987	6,564	4,977	3,299	58,369[13]	6
–	6,086	–	4,185	2,880	942[4]	–	7
32	–	37	33	31	32	–	8
28,816,440	46,495,240	9,181,640[13]	15,500,477[13]	10,106,531[13]	8,640,854[14]	125,876,375	9
3,799,545	4,774,630	1,110,575	2,265,481	1,137,637	2,871,066	17,376,342	10
25,016,895[12]	41,720,610	8,071,065	13,234,996	8,968,894	5,769,788	108,500,033	11
–	25,164,771	4,984,111	7,438,094	5,640,218	–	–	12

village school public and separate and each secondary school represented a school section, the total number of sections would be 6,919 as above. [10]In existence. [11]In existence, 1926. [12]Of this amount $8,738,621 was contributed by subsidized independent schools and higher institutions. [13]Exclusive of promissory notes. [14]Exclusive of $531,875 to provincial university. [15]Exclusive of $15,732 in grants to the schools for the deaf and blind. [16]Including $137,418 on technical education. [17]Including Government expenditure on salaries of teachers of general schools and P.W.C. ($261,764) and total supplement by districts ($88,352). [18]Approximately.

Section 1.—Elementary and Secondary Education.

It is considered that the best general test of the efficiency of public general education in Canada is furnished by the statistics of Table 2, showing the 1927 age-grade distribution of 1,391,698 pupils in the State schools of 7 provinces. Many other tables of this form, analysing age-grade distribution by provinces, by sex and by rural and urban areas and graded or ungraded schools, may be consulted in the "Annual Survey of Education in Canada, 1927", pp. 20-35.

2.—State-Controlled Schools in Canada: Distribution of 1,391,698 Pupils in Seven Provinces by Age and Grade, 1927.

Ages.	Elementary Grades.								
	K. and K.P.[1]	I.	II.	III.	IV.	V.	VI.	VII.	VIII.
4	1,320	448	–	–	–	–	–	–	–
5	16,732	16,793	116	1	–	–	–	–	–
6	7,897	92,236	7,113	247	36	1	–	–	–
7	2,311	81,865	42,397	6,535	1,659	91	3	–	1
8	792	36,950	53,342	31,268	13,531	2,477	169	12	–
9	336	14,482	30,224	40,723	33,427	16,227	3,064	277	26
10	153	7,031	14,286	27,685	39,956	34,217	15,793	3,092	417
11	23	3,160	6,671	14,391	27,857	38,535	30,907	13,988	4,177
12	19	1,886	3,737	8,427	17,310	29,478	34,777	26,282	15,202
13	22	1,079	1,944	4,291	9,718	18,385	25,889	28,057	27,713
Total 7–13	3,656	146,453	152,601	133,320	143,458	139,410	110,602	71,708	47,536
14	2	517	881	2,014	5,117	10,365	15,273	20,011	29,966
15	–	239	338	780	1,879	4,418	6,269	9,924	19,041
16	1	113	100	245	496	1,483	1,792	3,124	7,341
17	–	41	31	56	121	392	289	567	1,722
Total 14–17	3	910	1,350	3,095	7,613	16,658	23,623	33,626	58,100
18	–	23	22	26	31	94	63	91	334
19	1	58	17	30	32	64	64	57	136
Grand Total	**29,609**	**256,921**	**161,219**	**136,719**	**151,170**	**156,227**	**134,352**	**105,482**	**106,106**

Ages.	Secondary Grades.				Total.		
	IX.	X.	XI.	XII.	Elementary	Secondary.	Total.
4	–	–	–	–	1,768	–	1,768
5	–	–	–	–	33,642	–	33,642
6	–	–	–	–	107,530	–	107,530
7	–	–	–	–	134,862	–	134,862
8	–	–	–	–	138,541	–	138,541
9	–	–	–	–	138,786	–	138,786
10	38	1	–	–	142,630	39	142,669
11	543	29	–	–	139,709	572	140,281
12	3,525	380	4	–	137,118	3,909	141,027
13	11,565	2,641	296	13	117,098	14,515	131,613
Total 7–13	15,671	3,051	300	13	948,744	19,035	967,779
14	18,782	7,788	1,985	80	84,146	28,635	112,781
15	17,925	12,556	6,244	411	42,888	37,136	80,024
16	9,634	10,842	10,080	1,430	14,725	31,986	46,711
17	3,241	5,768	8,739	2,658	3,219	20,406	23,625
Total 14–17	49,582	36,954	27,048	4,579	144,978	118,163	263,141
18	846	2,023	4,892	2,309	684	10,070	10,754
19	468	880	2,973	2,304	459	6,625	7,084
Grand Total	**66,567**	**42,908**	**35,213**	**9,205**	**1,237,805**	**153,893**	**1,391,698**

[1]Kindergarten and kindergarten-primary.

General elementary and secondary education throughout the Dominion, in so far as it is publicly controlled, is carried on, except in Quebec, in free schools supported by general taxation. These schools may be divided into 12 grades, 8 of which are normally considered to be elementary and 4 secondary, these 12 grades each taking the average pupil one school year to complete, so that an average pupil, entering school at 6 years of age, would finish his secondary school course at 18.

An historical summary of the enrolment and average attendance in publicly controlled schools from 1824 to 1927 is given by provinces in Table 3. The totals of pupils enrolled in all provinces in the years 1867, 1871, 1881, 1891 and 1901 are approximations, based in certain cases upon provincial statistics for the nearest available years.

3.—Historical Summary of Enrolment and Average Attendance in Schools in Canada, by Provinces, 1824-1927.

TOTAL NUMBER ENROLLED—1824-1927.

Years.	P.E.I.	N.S.	N.B.	Que.[3]	Ontario.[4]	Manitoba.	Sask.	Alberta.	B.C.	Canada.
1811...	–	[1]	–	–	–	–		–	–	–
1824...	–	5,514	–	–	–	–		–	–	–
1829...	–	12,000	–	18,410	–	–		–	–	–
1835...	–	15,292	–	37,000	–	–		–	–	–
1845...	–	–	15,924	–	–	–		–	–	–
1846...	–	33,960	–	**60,000**[2]	–	–		–	–	–
1850...	–	–	–	–	**151,981**[2]	–		–	–	–
1852...	[2]	–	–	–	179,857	–		–	–	–
1861...	–	33,652	27,982	–	–	–		–	–	–
1864...	–	**35,405**[2]	30,632	–	–	–		–	–	–
1866...	–	50,574	30,263	–	–	–		–	401	–
1867...	–	65,869	31,364	–	403,339	–		–	–	718,000
1868...	–	68,612	31,988	205,530	–	–		–	–	–
1871...	–	75,995	**33,981**[2]	–	–	817		–	–	803,000
1872...	–	73,638	39,837	–	462,630	–		–	**514**[2]	–
1873...	–	74,297	42,611	216,992	–	–		–	1,028	–
1876...	–	79,813	64,689	–	499,078	2,734		–	1,685	–
1881...	21,501	78,828	65,631	227,935	489,404	**4,919**[2]		–	2,571	891,000
1886...	22,414	85,714	68,367	–	502,840	15,926		2,553	4,471	–
1891...	22,330	83,548	68,992	265,513	–	23,871		5,652	9,260	993,000
1892...	22,169	85,077	68,909	268,535	508,507	23,243		6,170	10,773	993,383
1894...	22,221	98,701	69,648	274,915	506,726	32,680		10,721	12,613	1,028,225
1895...	22,250	100,555	68,761	286,180	509,213	35,371		11,972	13,482	1,047,784
1896...	22,138	101,032	68,297	293,584	506,515	37,987		12,796	14,460	1,056,809
1901...	20,779	98,410	66,689	314,881	492,534	51,888		–	23,615	1,083,000
1903...	19,956	98,768	65,951	326,183	487,880	57,409		33,191	24,499	1,113,837
1904...	19,031	96,886	65,278	329,666	484,351	58,574		41,033	25,787	1,120,606
1905...	19,272	100,252	66,897	335,768	487,635	63,287	25,191	24,254	27,354	1,149,909
1906...	18,986	100,332	66,635	341,808	492,544	64,123	31,275	28,784	28,522	1,173,009
1907...	19,036	100,007	66,422	347,614	493,791	67,144	37,622	34,338	30,039	1,196,013
1908...	18,942	100,105	66,383	352,944	501,641	71,031	47,086	39,653	33,223	1,230,169
1909...	18,973	101,680	67,735	367,012	507,219	73,044	55,116	46,048	36,227	1,272,204
1910...	17,932	102,035	68,154	374,547	510,700	76,247	65,392	55,307	39,670	1,310,117
1911...	17,397	102,910	68,951	389,123	518,605	80,848	72,260	61,660	49,451	1,356,879
1913...	17,555	105,269	69,663	411,784	542,822	83,679	101,463	79,909	57,384	1,469,752
1914...	19,069	106,351	70,622	435,895	561,927	93,954	113,985	89,910	61,957	1,552,976
1915...	18,402	107,768	72,013	448,087	569,030	100,963	122,862	97,286	64,264	1,601,035
1916...	18,362	109,189	73,007	464,447	560,340	103,796	129,439	99,201	64,570	1,622,351
1917...	18,190	109,032	71,981	463,390	561,865	106,588	142,617	107,727	65,118	1,646,508
1918...	17,861	108,097	71,782	467,508	564,655	109,925	151,326	111,109	67,516	1,669,776
1919...	17,587	106,982	71,029	486,201	584,724	114,662	164,219	121,567	72,006	1,738,977
1920...	17,354	108,096	72,988	495,887	604,923	123,452	174,925	135,750	79,243	1,812,618
1921...	17,510	109,483	73,712	512,651	632,123	129,015	184,871	124,328[5]	85,950	1,869,643
1922...	18,323	114,229	77,774	530,705	654,893	136,876	183,935	142,902	91,919	1,951,556
1923...	17,742	114,458	78,753	537,406	667,922	142,369	194,313	148,045	94,888	1,995,896
1924...	17,281	111,594	79,265	541,485	671,311	144,491	204,154	157,373	96,204	2,013,158
1925...	17,427	112,352	80,145	548,519	677,458	145,834	206,595	147,796[6]	97,954	2,034,080
1926...	17,324	112,391	80,769	552,832	686,285	148,279	213,404	150,526[6]	101,688	2,063,498
1927...	17,210	112,556	80,690	–	–	148,763	218,560	154,380[6]	105,008	–

[1]Common school system formed. [2]Free school system established. [3]Primary schools only. [4]Not including vocational schools. [5]Half year only. [6]Including private schools from 1925.

3.—Historical Summary of Enrolment and Average Attendance in Schools in Canada, by Provinces, 1824-1927—concluded.

AVERAGE DAILY ATTENDANCE—1871-1927.

Years.	P.E.I.	N.S.	N.B.	Que.	Ontario.	Manitoba.	Sask.	Alberta.	B.C.	Canada.
1871...	–	43,612	–	–	–	–	–	–	–	–
1873...	–	41,392	–	–	–	–	–	–	575	–
1876...	–	45,373	–	–	217,202	–	–	–	984	–
1881...	–	43,461	36,688	–	222,534	–	–	–	1,367	–
1891...	12,898	49,347	–	–	–	12,443	–	–	5,135	–
1892...	12,986	50,975	–	205,623	–	12,976	–	–	6,227	–
1895...	13,250	54,007	–	221,168	–	19,516	–	–	8,610	–
1896...	13,412	54,016	–	220,969	–	20,247	–	–	9,254	669,000
1901...	12,330	53,643	37,473	232,255	275,234	27,550	–	–	15,335	669,000
1903...	12,112	55,213	38,032	243,123	275,385	36,479	16,321		16,627	704,000
1904...	11,722	54,000	37,567	246,319	273,815	31,326	20,918		17,071	705,000
1905...	11,627	56,342	39,402	255,420	281,674	33,794	13,493	13,375	18,871	724,171
1906...	11,903	59,165	38,482	263,111	285,330	34,947	15,770	14,782	19,809	743,496
1907...	11,543	57,173	38,790	266,510	284,998	37,279	19,841	17,310	20,459	754,000
1908...	11,647	58,343	40,202	271,019	292,052	40,691	26,081	18,923	23,473	782,584
1909...	11,543	61,787	42,501	285,729	295,352	41,405	28,998	22,225	25,662	815,449
1910...	11,632	65,630	42,596	293,035	299,747	43,885	34,517	29,611	28,423	849,344
1911...	10,511	61,250	42,791	301,678	305,648	45,303	38,278	32,556	32,517	870,801
1913...	11,003	65,686	44,375	324,447	330,474	48,163	56,005	45,888	43,072	969,380
1914...	11,170	66,599	44,534	344,657	346,509	58,778	65,009	54,582	49,090	1,041,018
1915...	11,694	70,361	47,889	360,897	365,959	68,250	72,113	61,112	52,494	1,111,075
1916...	11,347	69,227	48,069	373,364	355,364	66,561	71,522	60,271	50,880	1,140,763
1917...	11,319	70,118	46,860	367,468	369,081	69,209	88,758	65,374	52,577	1,141,065
1918...	11,334	67,923	46,515	369,057	328,197	69,968	91,010	68,489	54,748	1,107,467
1919...	10,908	65,906	45,797	365,803	388,768	72,072	98,791	74,776	56,692	1,179,512
1920...	10,991	66,442	46,950	372,377	396,141	88,563	101,355	82,417	59,791	1,237,146
1921...	11,446	78,238	49,655	397,172	446,396	86,137	113,412	89,401	68,597	1,335,454
1922...	12,338	79,410	51,590	421,604	470,073	95,433	119,041	100,515	75,528	1,425,532
1923...	11,763	83,472	53,611	422,159	474,859	98,787	130,499	105,364	77,752	1,458,266
1924...	11,783	79,509	58,179	430,184	487,480	103,775	139,782	105,862	79,262	1,506,698
1925...	12,259	80,318	58,182	437,988	496,355	104,312	144,650	107,880	82,721	1,524,665
1926...	11,823	80,446	58,346	443,255	498,662	106,809	152,430	110,928	85,293	1,547,992
1927...	11,777	81,426	60,426	–	–	106,793	157,392	115,125	88,306	–

4.—Total Pupils Enrolled and in Average Attendance, and Total in High School Grades, in Cities of 10,000 or over, by Sex, 1927, or latest Year Reported.

Name of City.	Number of Pupils Attending General Schools.				Number of Pupils in High School Grades (included in total General Schools).		
	Boys.	Girls.	Total.	Average Attendance.	Boys.	Girls.	Total.
Montreal, Que[1]	69,786	69,991	139,777	112,668	–	–	–
Toronto, Ont	57,523	55,523	113,355	83,561	4,720	4,005	9,432[2]
Winnipeg, Man	20,749	20,583	41,332	33,839	2,180	2,416	4,596
Vancouver, B.C	11,599	11,372	22,971	19,710	1,817	1,894	3,711
Hamilton, Ont	13,917	13,658	27,575	20,898	1,019	1,371	2,859[2]
Ottawa, Ont	12,520	12,532	25,052	18,637	1,171	995	3,112[2]
Quebec, Que[1]	11,558	11,817	23,375	20,068	–	–	–
Calgary, Alta	7,994	7,968	15,962	13,613	1,059	1,409	2,468
London, Ont	6,708	6,597	13,305	10,178	745	860	1,806[2]
Edmonton, Alta	8,021	8,674	16,695	14,067	1,036	1,547	2,583
Halifax, N.S	5,741	5,859	11,600	9,227	438	680	1,118
Saint John, N.B	4,393	4,701	9,094	7,688	384	649	1,033
Victoria, B.C	3,106	3,079	6,185	5,427	564	608	1,172
Windsor, Ont	7,685	7,115	14,800	10,189	538	454	992
Regina, Sask	4,855	4,859	9,714	–	706	815	1,521
Brantford, Ont	3,298	3,235	6,533	5,008	340	402	742
Saskatoon, Sask	4,362	4,446	8,808	–	803	866	1,669
Sydney, N.S	2,916	2,880	5,796	4,738	341	297	638
Kitchener, Ont	2,922	2,771	5,693	4,360	220	209	452[2]
Kingston, Ont	2,375	2,442	4,817	3,716	368	438	806
Sault Ste. Marie, Ont	2,996	2,992	5,988	4,582	222	253	489[2]
Peterborough, Ont	2,068	2,045	4,113	3,293	275	337	914[2]
Fort William, Ont	3,258	3,370	6,628	5,367	235	313	548
St. Catharines, Ont	2,677	2,684	5,361	4,027	310	306	616
Moose Jaw, Sask	2,918	3,007	5,925	–	438	560	998
Guelph, Ont	2,129	2,007	4,136	3,260	228	253	481
Moncton, N.B	1,933	1,945	3,878	3,375	219	314	533
Glace Bay, N.S	2,459	2,503	4,962	3,892	149	260	409
Stratford, Ont	2,005	1,918	3,923	3,370	299	254	553
St. Thomas, Ont	1,725	1,658	3,383	2,688	237	217	599[2]
Brandon, Man	1,901	1,918	3,819	2,799	225	292	517
Port Arthur, Ont	2,247	2,058	4,305	3,680	180	231	411
Sarnia, Ont	1,878	1,747	3,625	2,750	250	230	514[2]

4.—Total Pupils Enrolled and in Average Attendance, and Total in High School Grades, in Cities of 10,000 or over, by Sex, 1927 or latest Year Reported—concluded.

Name of City.	Number of Pupils Attending General Schools.				Number of Pupils in High School Grades (included in total General schools).		
	Boys.	Girls.	Total.	Average attendance.	Boys.	Girls.	Total.
Niagara Falls, Ont.	1,864	1,672	3,536	2,858	181	111	292
New Westminster, B.C.	1,670	1,732	3,402	2,936	338	367	705
Chatham, Ont.	1,719	1,610	3,329	2,453	218	203	421
Galt, Ont.	1,503	1,568	3,071	2,417	187	234	421
St. Boniface, Man.	1,576	1,636	3,212	2,501	142	218	360
Charlottetown, P.E.I.	1,030	967	1,997	1,646	138	130	268
Belleville, Ont.	1,484	1,492	2,976	2,323	230	313	543
Owen Sound, Ont.	1,505	1,491	2,996	2,447	166	196	362
Oshawa, Ont.	2,158	1,999	4,157	3,121	255	184	439
Lethbridge, Alta.	1,542	1,556	3,098	2,644	223	256	479
North Bay, Ont.	1,775	1,726	3,501	3,163	219	131	350
Welland, Ont.	1,264	1,322	2,586	1,854	133	154	287
Brockville, Ont.	1,013	1,031	2,044	1,651	213	235	448

[1]Primary schools including Protestant high schools, 1926. The high school enrolment is not filled out because it would not be complete without including the high school pupils of the classical colleges and independent classical schools and of the normal schools. [2]The figures by sex represent high schools and collegiate institutes only; the totals include pupils in fifth classes.

Secondary Education.—In the past quarter of a century the number of pupils of both sexes doing work of secondary grade has shown a very great absolute increase, as well as a large increase relatively to the number in elementary grades. The available statistics are given by years in Table **5**, showing that in each of the provinces and in every year the number of girls in the secondary grades has exceeded the number of boys. The drop in the Ontario figures between 1915 and 1917 is due in part to the change in the statistical year from the calendar year to the natural school year from September to June.

5.—Publicly Controlled Schools in Canada: Comparative Number of Boys and Girls doing work of Secondary Grade in Six Provinces, 1901-1927.[1]

Years.	N.S.		Ontario.[2]		Manitoba.		Sask.		Alberta.		B.C.	
	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.
1901	–	–	10,869	11,654	–	–	–	–	–	–	215	369
1902	–	–	11,629	12,843	–	–	–	–	–	–	313	471
1903	–	–	11,988	13,734	–	–	–	–	–	–	316	540
1904	2,496	4,499	12,718	14,991	–	–	–	–	–	–	381	600
1905	2,732	4,554	13,035	15,626	–	–	–	–	–	–	433	657
1906	2,775	4,864	13,336	16,056	–	–	–	–	–	–	412	763
1907	2,792	4,854	13,799	16,532	–	–	–	–	–	–	432	823
1908	2,985	4,928	14,731	17,181	–	–	335	399	–	–	613	857
1909	3,076	5,048	15,776	17,325	–	–	504	643	–	–	812	997
1910	3,181	5,476	15,196	17,416	–	–	623	805	–	–	919	1,122
1911	3,211	5,463	17,073	20,907	–	–	766	927	–	–	940	1,048
1912	3,132	5,536	17,345	21,022	–	–	885	1,129	–	–	973	1,178
1913	3,175	5,461	17,718	21,572	–	–	1,028	1,326	–	–	1,232	1,448
1914	3,216	5,687	19,475	23,060	–	–	1,304	1,622	–	–	1,414	1,593
1915	3,436	6,041	20,508	24,718	–	–	1,545	2,038	–	–	1,834	2,068
1916	3,466	6,260	–	–	–	–	1,566	2,283	–	–	2,260	2,510
1917	3,051	6,037	14,318	19,597	–	–	1,445	2,441	–	–	2,074	2,767
1918	3,082	6,115	14,342	19,859	–	–	1,523	2,561	–	–	2,151	2,999
1919	3,024	6,114	15,095	20,643	–	–	1,910	2,841	–	–	2,392	3,414
1920	3,313	6,178	16,682	21,480	–	–	2,492	3,425	–	–	3,826	3,810
1921	3,425	6,280	17,525	22,426	3,524	5,091	2,494	3,423	3,088	4,421	3,093	4,166
1922	4,202	6,937	21,408	25,502	–	–	2,423	3,204	4,707	6,055	3,788	4,846
1923	4,715	7,373	24,708	28,700	5,367	7,242	5,519	8,028	5,286	6,976	4,046	5,174
1924	4,415	7,217	26,417	31,183	–	–	6,604	9,410	5,877	7,569	4,380	5,509
1925	4,696	7,157	28,804	33,857	–	–	7,255	10,171	6,321	8,392	4,711	5,886
1926	4,605	7,343	29,281	34,175	5,560	7,991	8,140	11,361	6,658	7,795	5,306	6,473
1927	4,498	7,472	29,187[2]	33,867[2]	–	–	8,315	11,721	6,846	9,642	6,308	7,545

[1]1924—P.E.I., inc. P.W.C., 719-1,113; N.B., approx. 1,363—2,074: 1925—P.E.I., inc. P.W.C., 659-1,087; N.B., approx. 1,498—2,171: 1926—P.E.I., inc. P.W.C., 733-1,098; N.B., approx. 1,535—2,264: 1927—P.E.I., inc. P.W.C., 648—1,104; N.B., approx. 1,561—2,474. [2]Includes the pupils of continuation schools, high schools and collegiate institutes only. In 1926-27 in all secondary grades reported there were approximately 41,265 boys and 48,387 girls. These included full-time day vocational, public and separate schools. The figures in the tables are for comparative purposes confined to continuation and high schools and collegiate institutes.

Subjects of Instruction in Secondary Grades.—The subjects taken in the elementary grades of the publicly controlled schools are settled by the curriculum, but in the secondary grades there are usually options appealing to different types of pupils, wishing to follow different callings. Statistics of the subjects taken by pupils in secondary grades in 1927 available from six provinces are presented in Table 6, showing among other things the small number of pupils taking Greek and German in our secondary schools. Spanish has recently been made a secondary school subject in Ontario. Tables on pp. 39-46 of the "Annual Survey of Education in Canada, 1927" show in detail the changes in the subjects chosen by secondary grade pupils in the different provinces in recent years.

6.—Publicly Controlled Schools: Number of Pupils taking Certain Secondary Grade Subjects in Six Provinces, 1927.

NOTE.—The numbers taking the listed subjects include all pupils of secondary grade in N.S.; secondary pupils enrolled during the second term in N.B.; pupils in secondary schools only (not including secondary pupils in other than secondary schools) in Ontario, Saskatchewan, Alberta and British Columbia. These totals show the total enrolment in the schools represented.

Subjects.	Nova Scotia.	New Brunswick.	Ontario.	Saskatchewan.	Alberta.	British Columbia.	Total.
English	11,662	3,511	76,703	6,352	7,760	13,481	119,469
History	5,920	3,474	21,854[1]	6,160[2]	7,232[2]	12,014	56,654
Geography	5,123		32,103	3,229	1,304	1,269	43,028
Arithmetic and Mensuration	9,011	2,586	33,493	4,301	2,083	10,904	62,378
Algebra	11,279	3,394	44,797	5,761	6,104	11,515	82,850
Geometry	5,894	3,340	31,588	5,521	5,447	10,956	62,746
Trigonometry	430	114	3,941	786	681	289	6,241
French	9,092	3,317	58,752	5,023	4,663	9,842	90,689
Spanish	–	–	254	–	–	–	254
German	462	–	1,960	376	23	33	2,854
Latin	5,528	2,540	48,422	3,701	2,134	6,000	68,325
Greek	57	70	335	177	–	14	653
Italian	–	–	4	–	–	–	4
Zoology	–	–	10,762	463	–	–	11,225
Botany	1,984	3,258	13,988		–	549	19,779
Chemistry	2,103	1,327	14,501	2,526	1,615	5,024	27,096
Physics	5,391	1,309	20,331	2,098	2,600	3,308	35,037
Bookkeeping	–	1,560	12,106	585	611	1,936	16,798
Stenography	–	–	10,999	617	742	2,044	14,402
Typewriting	–	–	11,317	644	777	2,111	14,849
Business Law, etc	–	–	2,702	–	–	702	3,404
Art	4,681	917	14,899	1,307	1,782	5,199	28,785
Physical Culture	–	–	77,891	4,309	3,009	4,710	89,919
Agriculture	501	–	4,753	1,522	1,046	562	8,384
Manual Training	–	–	7,565	1,134	41	–	8,740
Household Science	–	–	4,346	1,244	26	3,325	8,941
Elementary Science	–	–	–	3,007	3,098	–	6,105
Music	–	–	–	1,045	96	183	1,324
Military Drill	–	–	–	1,630	1,170	–	2,800
Physiology	–	1,380	–	3,837	–	501	5,718
Practical Mathematics	1,791	–	–	–	–	–	1,791
Total Number of Pupils	**11,970**	**3,511**	**80,383[3]**	**6,927**	**9,209**	**13,853**	**125,853**

[1]Canadian History.
[2]Approximate.
[3]Including continuation and high schools, collegiate institutes and day vocational full-time pupils.

Teaching Staff.—As shown in Table 1, the teaching staff of Canadian schools consisted in 1927 of 66,004, 12,859 males and 53,145 females. Tables on pp. 64-70 of the "Annual Survey of Education in Canada, 1927" deal in detail with the classification of these teachers, the rates of salary paid and the teaching experience. Table 7 summarizes statistics regarding rates of salary, as far as available.

7.—Average Annual Salaries of School Teachers, by Provinces, 1925-1927, or latest year reported.

Province and Class of Certificate.	Male.	Female.	Province and Class of Certificate.	Male.	Female.
	$	$	Ontario—concluded.	$	$
Prince Edward Island, 1927—			High schools and collegiate institutes, 1927—		
First class	793	648	Principals	3,128	
Second class	535	488	Assistants	2,646	2,136
Third class	433	396	Continuation schools, 1926[3]—		
Nova Scotia, 1927—			Principals	1,768	
Class A	1,357	816	Assistants	1,334	1,323
Class B	1,175	708	Saskatchewan, 1927[1]—		
Class C	698	626	Rural schools—		
Class D	669	531	First class	1,188	1,055
Academic	2,072	1,552	Second class	1,124	1,029
New Brunswick, 1927—			Third class	1,026	965
First class	1,259	944	All classes	1,037	1,009
Second class	709	668	Cities, towns and villages—		
Third class	532	518	First class	1,789	1,261
Superior schools	1,344		Second class	1,446	1,153
Grammar schools	2,090		Third class	1,179	1,016
Quebec, 1926—			All classes	1,660	1,183
Religious teachers	557	374	Alberta, 1927—		
Lay teachers—			First class	1,589	1,194
Catholic schools	1,434	367	Second class	1,147	1,216
Protestant schools	2,279	1,047	Third class	1,045	937
Catholic and Protestant Schools	1,609	509	Permit	947	961
Ontario, 1926—			Specialist	2,520	2,138
Public schools—			Pending[2]	–	1,032
First class	2,047	1,197	British Columbia, 1927—		
Second class	1,419	1,134	High schools	2,338	
Third class and district certificate	964	833	Cities	1,491	
Public and separate, all classes	1,593	1,121	Rural municipalities	1,304	
			Rural and assisted	1,075	
			All schools	1,448	

[1]In Saskatchewan, only elementary school teachers are included. [2]Teachers with certificates from other provinces. [3]Teachers engaged for 1927-28.

Teachers in Training.—Detailed information regarding male and female teachers in training in 1926-27 is given in Table 101 of the "Annual Survey of Education in Canada, 1927". A summary of the number of teachers in training in each year from 1902 to 1927 is furnished by provinces in Table 8.

8.—Publicly Controlled Schools in Canada: Number of Teachers in Training in Normal Schools and Colleges, by Provinces, 1902-1927.[1]

Years.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
1902	–	182	269	420	1,922	320	–	–	–	3,113
1903	–	145	224	460	1,861	319	–	–	–	3,009
1904	–	191	288	392	1,592	390	–	–	–	2,853
1905	–	148	285	416	1,685	491	–	–	–	3,025
1906	–	154	307	423	2,286	476	188	102	–	3,936
1908	–	161	334	526	1,788	410	229	140	–	3,588
1909	–	215	343	715	1,410	448	411	182	–	3,724
1910	–	260	358	787	1,510	503	447	218	–	4,083
1911	–	268	370	840	1,474	628	241	248	–	4,069
1912	–	293	376	836	1,513	–	580	278	–	3,876
1913	–	302	358	1,088	1,436	529	643	292	–	4,648
1914	–	318	357	1,270	1,563	581	886	364	–	5,339
1915	–	355	351	1,312	1,425	672	1,222	601	–	5,938
1916	–	388	372	1,357	1,819	737	911	438	–	6,022
1917	–	263	372	1,361	1,438	599	1,081	358	335	5,807
1918	–	260	287	1,339	1,676	513	621	488	365	5,549
1919	–	255	263	1,223	1,659	554	1,058	598	425	6,035
1920	220	228	263	1,502	1,959	593	723	694	404	6,586
1921	241	241	216	1,376	2,221	642	899	892	377	7,105
1922	341	356	358	1,389	2,684	790	1,462	760	685	8,825
1923	347	353	451	1,555	3,131	637	1,571	1,033	672	9,750
1924	338	383	442	1,623	3,392	695	1,621	616	639	9,749
1925	297	412	430	1,771	2,611	695	1,702	631	563	9,112
1926	299	329	424	1,854	2,786	636	1,655	739	453	9,175
1927	243	300	344	1,884	2,441	626	1,514	712	335	8,399

[1]For the sake of comparison between years there are certain omissions in this table. For full figures or 1927, see Table 101 in the "Annual Survey of Education in Canada, 1927".

Receipts and Expenditure.—The total receipts and expenditure of the publicly controlled schools of the different provinces are published for recent years in Table 9.

9.—Canadian Publicly Controlled Schools: Receipts and Expenditure by Provinces, 1922-27[1].

Years.	P.E.I.			N.S.			
	Govt. grants.	Local assessment.	Total Receipts.	Govt. grants.	Municipal funds.	Local assessment.	Total Receipts.
	$	$	$	$	$	$	$
1922	271,103	157,766	428,869	616,389	502,804	2,527,377	3,646,57[illegible]
1923	296,836	202,714	496,550	649,363	525,114	2,313,460	3,487,[illegible]
1924	279,898	169,949	449,847	638,593	523,913	2,428,832	3,591,[illegible]
1925	285,102	167,597	452,699	648,648	524,037	2,522,255	3,704,94[illegible]
1926	283,022	171,649	454,671	653,734	523,738	2,393,155	3,570,62[illegible]
1927	284,313	174,164	458,477	688,081	524,196	2,393,125	3,605,40[illegible]

Years.	N.B.				Que.		
	Govt. grants.	Municipal funds.	Local assessment.	Total Receipts.	Govt. grants.	Assessment and other sources.	Total Receipts.
	$	$	$	$	$	$	$
1922	381,075	195,948	2,080,023	2,657,046	2,064,409	21,367,788	23,972,19[illegible]
1923	386,883	204,103	2,083,391	2,674,377	3,261,111	22,135,157	25,396,26[illegible]
1924	403,454	213,836	2,102,937	2,720,227	3,776,674	24,141,064	27,917,73[illegible]
1925	400,059	211,885	2,736,430	3,348,374	3,771,317	25,209,251	28,980,56[illegible]
1926	425,181	213,066	2,263,082	2,901,329	3,799,545	25,016,895	28,816,44[illegible]
1927	445,014	212,350	2,413,951	3,071,315	–	–	–

ONTARIO—Receipts.

Years.	Elementary Schools.				Secondary Schools.		Grand total.
	Govt. grants.	Local assessments	Clergy reserve fund and other sources.	Total.	Govt. grants.	Total.	
	$	$	$	$	$	$	$
1922	2,976,712	22,842,180	12,805,773	38,624,665	1,063,323	11,608,199	50,232,86[illegible]
1923	3,266,584	23,855,879	16,460,831	43,583,294	1,112,292	13,856,252	57,439,54[illegible]
1924	3,392,552	24,113,034	12,630,296	40,135,882	1,219,260	13,558,098	53,693,98[illegible]
1925	3,401,863	24,690,293	12,670,626	40,762,782	1,319,737	13,261,826	54,024,60[illegible]
1926	3,345,308	24,564,710	14,223,076	42,133,094	1,429,322	13,780,410	55,913,50[illegible]

ONTARIO—Expenditure.

Years.	Elementary Schools					Secondary schools.	Grand total.
	Teachers' salaries.	Sites, etc.	Apparatus, etc.	Rents, etc.	Total.		
	$	$	$	$	$	$	$
1922	16,690,982	6,284,139	480,483	8,465,280	31,920,884	9,495,920	41,416,80[illegible]
1923	17,534,704	7,497,509	504,670	10,321,472	35,858,355	12,176,209	48,034,56[illegible]
1924	18,105,568	4,408,473	518,989	9,977,034	33,010,064	12,020,621	45,030,68[illegible]
1925	18,569,110	4,042,896	504,923	10,181,188	33,298,817	12,356,796	45,655,61[illegible]

[1]For other years back to 1901, see 1921 Year Book, pp. 148–153.

9.—Canadian Publicly Controlled Schools: Receipts and Expenditure, by Provinces, 1922-27[1]—continued.

MANITOBA—Receipts.

Years.	Legislative grants.	Municipal taxes.	Debentures.	Promissory notes.	Sundries.	Balance from previous years.	Total.
	$	$	$	$	$	$	$
1922	1,058,292	7,991,517	1,832,134	2,613,709	242,840	563,183	14,301,675
1923	1,011,048	8,173,986	314,519	3,135,722	308,438	894,229	13,837,943
1924	1,096,010	7,468,737	812,787	1,786,188	220,704	752,990	12,137,416
1925	1,310,067	7,283,360	677,775	1,335,695	185,109	833,930	11,625,936
1926	1,091,151	7,302,044	402,504	1,010,958	190,002	955,802	10,952,462
1927	1,110,575	7,365,798	369,721	1,090,556	275,718	960,332	11,172,700

MANITOBA—Expenditure.

Years.	Teachers' salaries.	Building, etc.	Fuel, etc.	Repairs and caretaking.	Secretary-treasurers' salaries.
	$	$	$	$	$
1922	5,016,903	1,947,527	512,016	746,642	140,414
1923	5,081,809	1,276,288	433,882	659,134	146,797
1924	4,849,712	726,585	410,680	624,455	131,929
1925	4,838,723	269,893	318,804	769,435	150,783
1926	4,914,087	419,047	242,542	782,226	164,403
1927	4,984,111	718,348	396,217	658,723	223,287

Years.	Principal of debentures.	Interest on debentures.	Promissory notes.	Other expenditures.	Total.
	$	$	$	$	$
1922	485,365	610,418	2,666,484	1,439,055	13,564,824
1923	596,878	625,196	2,789,178	1,390,092	12,999,254
1924	378,176	678,079	2,364,476	1,120,003	11,284,095
1925	585,796	737,070	2,123,882	876,942	10,671,328
1926	605,920	681,643	1,188,854	995,238	9,993,961
1927	613,671	683,883	1,067,836	903,400	10,249,476

SASKATCHEWAN—Receipts.

Years.	Elementary Schools.					Secondary Schools.		Grand total.
	Govt. grants.	Local assessments.	Debentures.	Other sources.	Total.	Govt. grants.	Total.	
	$	$	$	$	$	$	$	$
1922	1,779,228	10,090,401	631,219	2,026,838	14,527,686	191,912	601,130	15,128,816
1923	1,620,803	10,101,291	810,858	1,922,923	14,455,875	213,233	639,704	15,095,579
1924	1,850,403	10,015,774	551,834	1,820,432	14,234,445	224,257	657,333	14,891,778
1925	1,913,643	10,063,559	720,272	1,927,253	14,624,727	216,102	664,181	15,288,908
1926	2,033,761	10,229,432	883,695	1,809,126	14,956,014	231,720	739,143	15,695,157

[1]For other years back to 1901, see 1921 Year Book, pp. 148–153.

9.—Canadian Publicly Controlled Schools: Receipts and Expenditure by Provinces 1922-27[1]—concluded.

SASKATCHEWAN—Expenditure.

Years.	Elementary Schools.						Secondary Schools.		Grand Total
	Teachers' salaries.	Debentures.	Notes (renewals and interest).	School bldgs. and grounds.	Other expenditure.	Total expenditure.	Teachers' salaries.	Total[2].	
	$	$	$	$	$	$	$	$	$
1922....	6,812,680	1,379,574	2,026,119	1,153,081	2,840,545	14,211,999	410,437	707,804	14,919,80
1923....	6,737,772	1,518,266	1,767,226	1,362,975	2,960,032	14,346,271	429,200	806,365	15,152,63
1924....	6,830,764	1,471,020	1,611,562	1,202,530	2,946,013	14,061,889	449,096	699,279	14,761,16
1925....	6,828,428	1,481,450	1,577,795	1,320,091	3,083,072	14,290,836	459,630	690,247	14,981,08
1926....	6,957,331	1,428,945	1,571,714	1,629,230	3,202,636	14,789,956	480,763	710,521	15,500,47

ALBERTA—Receipts.

Years.	Govt. grants.	Local Assessments.	Debentures.	Notes.	Other sources.	Total.
	$	$	$	$	$	$
1922.....	1,241,510	7,475,582	1,262,120	2,232,254	216,998	12,477,12
1923.....	1,117,023	8,282,650	449,376	1,928,153	260,192	12,037,39
1924.....	1,054,733	8,327,327	493,989	1,267,787	345,485	11,489,22
1925.....	1,084,879	8,197,098	357,103	1,130,357	364,954	11,134,39
1926.....	1,137,638	8,241,715	573,401	1,058,121	320,363	11,331,22

ALBERTA—Expenditure.

Years.	Teachers' salaries.	Officials' salaries.	Debentures.	Notes.	Buildings.	Other expenditure.	Total expenditure.
	$	$	$	$	$	$	$
1922.....	5,428,826	283,873	1,183,983	2,457,356	999,787	2,004,543	12,358,37
1923.....	5,411,487	281,680	1,213,110	2,190,676	830,895	1,935,719	11,863,56
1924.....	5,443,248	305,914	1,273,607	1,727,405	703,495	2,000,837	11,458,56
1925.....	5,477,156	276,519	1,225,741	1,269,913	630,377	1,947,084	10,826,77
1926.....	5,640,219	332,467	1,226,350	1,173,582	839,841	2,067,084	11,280,11

BRITISH COLUMBIA—Expenditure.

Years.	Local Assessments.				Provincial Government.	Grand total.
	Cities.	Rural municipalities.	Other rural.	Total.		
	$	$	$	$	$	$
1922.....	–	–	–	4,691,840	3,141,738[3]	7,833,57
1923.....	2,727,755	1,371,147	354,421	4,453,323	3,176,686[3]	7,630,00
1924.....	3,053,161	1,492,501	477,639	5,023,301	3,173,395[3]	8,196,69
1925.....	2,959,649	1,694,553	451,216	5,105,418	3,223,671[3]	8,329,08
1926.....	3,015,092	1,600,452	479,876	5,095,420	3,216,209[3]	8,311,62
1927.....	3,269,522	1,992,573	507,692	5,769,787	3,402,941[3]	9,172,75

[1]For other years back to 1901, see 1921 Year Book, pp. 148–153.
[2]The items for 1922–1926 do not include promissory notes.
[3]Including grants to provincial University as follows: 1922, $445,000; 1923, $446,250; 1924, $458,1[illegible] 1925, $466,000; 1926, $516,242; and in 1927, $531,875.

Section 2.—Vocational and Technical Education.

As late as the 70's and 80's of the last century, little vocational education was given in the schools; private business colleges were established in the cities about this time.

Among the first vocational courses introduced into State schools were commercial courses, which were introduced into the high school curricula of Ontario and Manitoba in 1899, of British Columbia in 1905, and of Saskatchewan and Alberta about the same time. The classical colleges of Quebec were also among the first to provide a commercial course for those of their pupils who did not desire to enter the professions, and a school for commercial studies was founded in 1907 at Montreal.

Agriculture was first taught in special colleges, the Ontario Agricultural College at Guelph, a government institution, being founded in 1874, the Nova Scotia Agricultural College in 1888, the Manitoba Agricultural College in 1903, Macdonald College at Ste. Anne de Bellevue, Que., in 1907. The agricultural college at Ste. Anne de la Pocatière, Quebec, the first in Canada and the second on the continent, had been founded in 1859, while the Oka Agricultural Institute was established in 1890. The Ontario Veterinary College, founded in Toronto as a private venture in 1862, was one of the first on the continent, and for many years drew its students very largely from the United States. It was taken over by the Ontario Government in 1908 and transferred to Guelph in 1922.

Training in handicrafts was introduced into the schools in the form of manual training for boys and domestic science for girls. The former was originally intended merely as a training in the use of tools, partly as a recreation and partly as a means whereby the boy could get some idea of his capacity as a mechanic. A form of this manual training was introduced into Ontario schools in 1883 and into the schools of Nova Scotia in 1891; in the latter province it was made compulsory for teachers in training in 1893. In the Prairie Provinces, manual training was introduced in the first decade of the present century.

The second decade of the twentieth century, however, saw a more rapid development in technical and vocational education. Following upon the publication of Dr. Seath's report on Education for Industrial Purposes and the report of the Royal Commission of 1910 on Industrial Training and Technical Education, published in 1913, technical education has made rapid strides, partly due to the stimulus given to manufactures by the war. By 1915, manual training courses in Ontario had branched out into industrial, technical and art schools, and in that year a large technical school was opened in Toronto. The Kelvin and St. John's Technical Schools in Winnipeg date from 1911, and the great technical school in Montreal from the same year.

Aid Given by Dominion Government.—While educational administration is a matter for the provinces, the Dominion Government, realizing the national importance of vocational education, has supplemented the provincial funds available for these purposes. In 1913 the Agricultural Instruction Act was passed, distributing $10,000,000 in 10 years among the provinces for the advancement of agricultural education. In 1919 a similar sum was voted for technical education, to be divided within 10 years among the provinces, approximately in proportion to population,

but so as not to exceed the sums expended by the provinces on technical education. These grants have been most effective in turning the attention of the provincial authorities toward vocational education, which is making great strides, especially in the eastern manufacturing provinces.

The number of students in institutions for technical education coming within the scope of the Technical Education Act of 1919 (9-10 Geo. V, c. 73) in the academic years ended June 30, was as follows:—1921, 56,744; 1922, 61,961; 1923, 70,300; 1924, 79,829; 1925, 88,024; 1926, 88,961; 1927, 96,682; 1928, 109,0[illegible] (Table **10**).

10.—Vocational Schools, Teachers and Pupils in Canada, school year ended June 3[illegible] 1928.

Province.	Number of Municipalities Conducting Classes.		Number of Teachers.				Number of Pupils.			
	Day.	Evening.	Day.	Evening.	Correspondence Department.	Total	Day.	Evening.	Correspondence Department.	Tot[illegible]
Prince Edward Island	1	15	21	24	–	45	937	430	–	1,[illegible]
Nova Scotia	2	26	7	136	14	157	471	2,620	1,051	4,1[illegible]
New Brunswick	8	9	64	100	–	164	1,101	1,874	–	2,[illegible]
Quebec	16	14	149	427	–	576	4,839	11,491	–	16,[illegible]
Ontario	34	57	831	1,276	–	2,107	24,526	39,096	–	63,[illegible]
Manitoba	4	1	215	51	2	268	2,422	1,658	111	4,[illegible]
Saskatchewan	3	2	44	42	–	86	954	1,144	–	2,[illegible]
Alberta	3	11	86	101	4	191	2,120	2,610	290	5,[illegible]
British Columbia	15	49	181	252	3	436	3,591	5,444	228	9,[illegible]
Totals, 1928	**86**	**184**	**1,598**	**2,409**	**23**	**4,030**	**40,961**	**66,367**	**1,680**	**109,[illegible]**
Totals, 1927	**78**	**170**	**1,515**	**2,129**	**22**	**3,666**	**34,703**	**60,313**	**1,666**	**96,[illegible]**

Section 3.—Higher Education.

Higher education in Canada is carried on in 23 universities and 85 colleges, b[illegible] for one of the latter no statistics are available. Of the colleges, 50 are in the pro[illegible]ince of Quebec, including 22 classical colleges and little seminaries, 10 indepe[illegible]dent, non-subsidized institutions for classical education and 11 others wh[illegible] superior education is given. The classical colleges and "little seminaries" [illegible] officially classed as "secondary" institutions, but the meaning of "secondary," referring to Catholic education in Quebec, includes the provision of a full cou[illegible] in Arts, the degrees being conferred by Laval University and the University Montreal.

Universities.—Of the 23 universities, six are state-controlled (New Brunswi[illegible] Toronto, Manitoba, Saskatchewan, Alberta and British Columbia); four others [illegible] undenominational (Dalhousie, McGill, Queen's and Western); while the remain[illegible] are denominational, St. Dunstan's, St. Francis Xavier, St. Joseph's, Laval, Montr[illegible] and Ottawa representing the Roman Catholic Church, King's College, Bisho[illegible] College and Trinity College representing the Church of England, Acadia a[illegible] McMaster representing the Baptist Church, and Mount Allison and Victo[illegible] representing the United Church. Victoria and Trinity are in federation w[illegible] Toronto and King's College with Dalhousie.

Colleges.—The 85 colleges may be roughly classified as five agricultural, two technical, one commercial, one pharmaceutical, one veterinary, one military, two law, 35 theological, together with 38 other affiliated colleges, including 32 classical colleges, little seminaries and independent non-subsidized classical schools in Quebec.[1] The classification of the 85 colleges actually listed is somewhat approximate, for the reason that a large number of theological and other colleges offer courses in arts or preparatory courses. Macdonald College, for example, might be classified as both agricultural and affiliated, or it might be excluded from the list of colleges and regarded as a faculty of McGill University. It is included above among the agricultural colleges, which include the Nova Scotia Agricultural College, Macdonald, Oka and Ste. Anne de la Pocatière in Quebec, and Ontario Agricultural College. The technical college is the Nova Scotia Technical College. The law schools are the Ontario Law School (Osgoode Hall), in Toronto, and the Manitoba Law School. The veterinary and pharmaceutical colleges are in Ontario. The theological colleges are:—Collège Ste. Anne and the Holy Heart College, in Nova Scotia; Collège du Sacré Cœur, in New Brunswick; the Presbyterian College, the Montreal Diocesan, the United Theological and 11 Catholic Theological Colleges, in Quebec; Knox, Union Theological, Toronto Bible, Evangelical Lutheran, Huron and Wycliffe, in Ontario; Manitoba College and St. John's, in Manitoba; St. Chad's, St. Andrew's and Emmanuel, in Saskatchewan; St. Stephen's, Lutheran Seminary, St. Aidan's and St. Joseph's Colleges, in Alberta; and the Anglican and Columbian Theological Colleges, in British Columbia. The affiliated colleges for arts, etc., are:—St. Mary's, in Nova Scotia; the 32 classical colleges, little seminaries and independent secondary institutions, in Quebec; St. Michael's, Waterloo and St. Jerome's, in Ontario; Brandon and Wesley, in Manitoba; and Edmonton Jesuit, in Alberta. The miscellaneous colleges are Ecole des Hautes Etudes Commerciales, in Quebec, and the Royal Military College in Ontario. The Edmonton Jesuit College is a classical college and is "associated" with Laval University, but the 22 classical colleges above mentioned are all situated in Quebec and "affiliated" or "annexed" to the Catholic universities. An "affiliated" college in Quebec means a college of which the university has direct control of the courses and degrees; an "annexed" college is one of which the university merely approves the curriculum and by-laws, is represented at the examinations and sanctions the diplomas awarded; an "associated" college is an affiliated college situated outside the province. St. Dunstan's

[1]Certain other institutions incorporated with the Universities of Montreal and Laval are sometimes known separately as colleges; for example, the Polytechnic School affiliated with Montreal; 2 institutes of modern secondary education, 1 affiliated with Montreal and 1 with Laval; 30 convents and 5 household science schools; 17 convents and 3 household science schools affiliated with Montreal and the remainder with Laval; 2 Institutes of Modern Secondary Education, one affiliated with Montreal and one with Laval. All these are affiliated for arts only and contribute to the registration in arts of the 2 universities as seen in Table **17**. Mention should also be made of 2 schools of fine arts, 1 in Montreal and 1 in Quebec, and 7 technical schools. The enrolments of the schools of fine arts and of the technical schools are included in the vocational schools in Table **10**, but the students in their four-year day courses might logically be included with the registration of the other colleges and are actually included in item 11 of Table **1** of this chapter

University, St. Mathieu's Classical College at Gravelbourg, Sask., the Collège du Sacré Cœur at Sudbury, Ont., and the Edmonton Jesuit College are thus "associated" with Laval University.

Registration of Students.—The number of students registered in universities during the academic year 1926-27 was 14,243 in state-controlled institutions, 7,881 in other undenominational institutions, 20,422 in denominational institutions (in addition to 1,051 in denominational institutions federated with state or undenominational institutions and already included in the figures of these), making a grand total of 42,546 (Table **13**). This, however, is the gross registration, including affiliated colleges and preparatory secondary schools. In colleges the registration was 19,678, of whom 5,060 are estimated as being already included in the registration of universities. This makes a net grand total in universities and colleges of 57,164. To the net result, after the elimination of duplicate registrations, of 57,164 in universities and colleges, might be added the greater part of 5,218 students in vacation and extension courses who were not considered by some universities as belonging to their general registration and several thousands in extension courses in agriculture given by staffs of the universities and agricultural colleges in different parts of the country. The total registration included 14,388 in preparatory courses offered at 43 institutions; 14,800 in arts and pure science; 2,611 in medicine; 2,406 in engineering and applied science; 2,209 in music; 2,017 in theology; 257 in social science; 899 in commerce; 798 in law; 633 in pharmacy; 540 in dentistry; 1,95[illegible] in agriculture; 824 in education, 1,111 in household science; 532 in nursing; 13[illegible] in forestry; 74 in veterinary medicine. There were 30,874 in vacation courses including 5,133 degree students.

Degrees Conferred.—The number of degrees conferred by universities during the academic year 1926-27 was 3,642 on men and 1,775 on women. These included Bachelor degrees, 2,435 on men and 885 on women; Master degrees, 257 on men and 73 on women; Doctor's degrees, 497 on men and 18 on women; Licentiates, diplomas and certificates, 453 on men and 799 on women. We find no less than nine different denominations of Bachelor of Science, as in arts, in commerce, in agriculture, etc.

Financial Statistics.—Financial statistics show the total assets of 22 of the 23 universities of Canada at June 30, 1927 as $89,411,189. The aggregate income of 22 of the 23 universities (Laval university did not report) was $10,108,094, which $1,955,475 came from investments, $4,516,226 from government and municipal grants, and $2,092,650 from fees. The total expenditure of these 22 universities aggregated $11,555,726, of which capital expenditure formed about 14 p.c. (Table **16.**)

11.—Universities of Canada: Foundation, Affiliation and Faculties.

NOTE—For details of degrees conferred by these universities in 1927, see pp. 96-99 of the Bureau of Statistics' Annual Survey of Education in Canada, 1927. For summary of degrees conferred, see Table 15 of this chapter.

Name and Address.	Date of Original Foundation.	Date of Present Charter.	Affiliation to other Universities.	Faculties.
University of St. Dunstan's, Charlottetown, P.E.I.	1855	—	Laval.	Arts, Preparatory Commercial and Theology.
University of King's College, Halifax, N.S.[1]	1789	1802	Oxford and Cambridge[1]...	Arts, Law, Science, Divinity.
Dalhousie University, Halifax, N.S.	1818	1863	Oxford and Cambridge....	Arts and Science, Law, Medicine and Dentistry.
Acadia University, Wolfville, N.S.	1838	1840	Oxford, Dalhousie, McGill and Nova Scotia Technical.	Arts, Divinity, Law, Science, Applied Science, Literature.
University of St. Francis Xavier, Antigonish, N.B.	1855	1909	—	Arts, Science, Engineering, Law.
University of New Brunswick, Fredericton, N.B.	1800	1860	Oxford, Cambridge, Dublin, McGill.	Arts, Applied Science, Partial Course in Law, Civil Engineering, Electrical Engineering, Forestry.
Mount Allison University, Sackville, N.B.	1858	1886-1913	Dalhousie, Oxford and Cambridge.	Arts, Theology, Engineering.
University of St. Joseph's College, St. Joseph, N.B.	1864	1898	Oxford.	Arts, Science.
McGill University, Montreal, Que.	1821	1852	Acadia, Mount Allison, St. Francis-Xavier, Alberta, are affiliated to McGill in the Faculty of Applied Science.	Arts, Applied Science, Law Medicine, Agriculture.
University of Bishop's College, Lennoxville, Que.	1843	1853	Oxford and Cambridge...	Arts, Divinity, Medicine and Law.
Laval University, Quebec, Que.	1852	1852	—	Theology, Law, Medicine, Arts.
University of Montreal, Montreal, Que.	1878	1920	—	Theology, Law, Medicine, Arts, Domestic Science, Drawing, Music.
University of Toronto, Toronto, Ont.	1827	1906	Oxford, Cambridge and Dublin.	Arts, Medicine, Applied Science, Engineering, Agriculture, Forestry, Education, Household Science.
Victoria University, Toronto, Ont.	1836	1836	Toronto (fed.).....	Arts and Theology.
University of Trinity College, Toronto, Ont.	1851	1852	Toronto (fed.).....	Arts and Divinity.
Western University, London, Ont.	1878	1908	—	Arts, Medicine and Public Health, Music.
Queen's University, Kingston, Ont.	1841	1841	—	Arts, Science, Engineering, Medicine, Theology.
University of Ottawa, Ottawa, Ont.	1849	1866	—	Theology, Philosophy, Law, Arts and Commercial.
McMaster University, Toronto, Ont.	1857	1887	Oxford, Cambridge, London.	Arts, Theology.
University of Manitoba, Winnipeg, Man.	1877	1877	—	Arts, Science, Law, Medicine, Engineering, Architecture, Pharmacy, Agriculture.
University of Saskatchewan, Saskatoon, Sask.	1907	1907	Oxford.....	Arts, Science, Law, Agriculture, Engineering, Pharmacy, Accounting, Education, Veterinary Medicine.
University of Alberta, Edmonton, Alta.	1906	1910	Oxford, McGill and Toronto.	Arts and Science, Applied Science, Agriculture, Medicine, Dentistry, Law, Pharmacy and Accountancy.
University of British Columbia, Vancouver, B.C.	1907	1908	—	Arts, Applied Science and Agriculture.

[1]Federated with Dalhousie.

12.—Universities of Canada: Teaching Staff, classified as Full Time and Part Time, by Sex, 1926-27.

Total Teaching Staff (excluding duplicates).

Name of University.	Principals.		Deans.		Professors.		Associate Prof.		Assist. Prof.		Lecturers.		Instructors.		Tutors.		Other.		Total.			Teaching Deans not included with total.	Teaching Principal or head not included.	Non-Teaching Principal or head.
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	Total.			
Total Staff.																								
St. Dunstan's	1	–	–	–	12	–	3	–	–	–	–	–	–	–	–	–	–	–	16	–	16	–	–	–
King's	–	–	1	–	5	–	3	–	3	–	2	–	–	–	–	–	–	–	14	–	14	–	–	1
Dalhousie	–	–	3	–	35	–	15	–	9	–	31	1	9	1	–	–	20	–	122	2	124	–	–	1
Acadia	1	–	5	1	20	1	5	–	5	–	2	–	7	–	–	–	–	–	45	2	47	–	–	–
St. Francis Xavier	–	–	–	–	19	–	1	–	–	–	–	–	–	–	–	–	–	–	20	–	20	–	–	1
New Brunswick	–	–	3	–	10	–	–	–	–	–	16	–	–	–	–	–	–	–	29	–	29	–	1	–
Mount Allison	–	–	–	–	14	–	–	–	–	–	2	2	3	2	–	–	6	–	25	4	29	–	1	–
St. Joseph's	–	–	–	–	23	–	–	–	11	–	–	–	–	–	–	–	–	–	34	–	34	–	1	–
McGill	–	–	9	–	73	1	33	1	65	3	79	14	156	24	–	–	8	7	423	50	473	–	–	1
Bishop's	–	–	2	–	4	–	–	–	–	–	6	–	–	–	–	–	–	–	12	–	12	–	1	–
Laval	–	–	4	–	77	–	37	–	26	–	33	–	–	–	395	–	5	–	577	–	577	–	1	–
Montreal	7	–	25	–	556	180	71	–	20	–	50	–	26	–	–	–	2	–	757	180	937	–	–	1
Toronto	–	–	7	–	90	2	62	–	59	3	86	10	305	34	–	–	–	1	609	50	659	–	1	1
Victoria	–	–	–	–	17	–	3	1	–	–	5	1	1	–	–	–	2	2	28	4	32	–	1	–
Trinity	–	–	1	1	10	–	1	1	–	–	6	–	–	–	–	–	–	–	18	2	20	–	1	–
Western	3	–	4	1	41	2	21	–	17	1	27	4	55	14	–	–	9	14	177	36	213	–	–	–
McMaster	–	–	2	–	13	–	–	–	–	–	5	1	1	1	–	–	1	–	22	2	24	–	–	1
Manitoba	–	–	5	1	44	1	33	–	37	1	66	7	–	–	–	–	73	10	258	20	278	–	–	1
Saskatchewan	–	–	6	–	30	–	25	2	10	4	6	–	9	4	17	–	6	–	109	10	119	–	1	–
Alberta	–	–	–	–	40	1	17	1	26	–	20	2	21	3	6	1	8	1	138	9	147	5	–	1
British Columbia	–	–	3	1	26	–	26	2	17	2	5	–	4	2	–	–	20	14	101	21	122	–	–	1
Total	12	–	80	5	1,158	188	356	8	305	14	447	42	597	85	418	1	160	49	3,534	392	3,926	5	9	10
Queen's	–	–	3	1	42	–	11	–	18	1	17	2	–	3	–	–	–	–	–	–	158[1]	–	–	–
Ottawa	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	142	37	179	–	–	–
																			3,676	429	4,263	5	9	10

FULL TIME.																									
St. Dunstan's	1	–	–	–	11	–	3	–	–	–	–	–	–	–	–	–	–	–	15	–	15	–	–	–	
King's	–	–	1	–	5	–	3	–	3	–	–	–	–	–	–	–	–	–	12	–	12	–	–	–	1
Dalhousie	–	–	2	–	23	–	8	–	8	–	–	–	3	–	–	–	–	–	44	–	44	–	–	–	1
Acadia	1	–	5	1	20	1	5	–	5	–	–	–	7	–	–	–	–	–	43	2	45	–	–	–	
St. Francis Xavier	–	–	–	–	19	–	1	–	–	–	–	–	–	–	–	–	–	–	20	–	20	–	–	–	1
New Brunswick	–	–	2	–	10	–	–	–	–	–	–	–	–	–	–	–	–	–	12	–	12	–	1	–	
Mount Allison	–	–	–	–	14	–	–	–	–	–	2	2	3	2	–	–	6	–	25	4	29	–	1	–	
St. Joseph's	–	–	–	–	23	–	–	–	11	–	–	–	–	–	–	–	–	–	34	–	34	–	1	–	
McGill	–	–	9	–	73	1	33	1	65	3	79	14	156	24	–	–	8	7	423	50	473	–	–	–	1
Bishop's	–	–	2	–	4	–	–	–	–	–	6	–	–	–	–	–	–	–	12	–	12	–	1	–	
Laval	–	–	4	–	23	–	4	–	23	–	–	–	–	–	395	–	5	–	454	–	454	–	1	–	
Montreal	1	–	9	–	423	165	5	–	–	–	15	–	7	–	–	–	2	–	462	165	627	–	–	–	1
Toronto	–	–	7	–	90	2	62	–	59	3	86	10	305	34	–	–	–	1	609	50	659	–	1	–	1
Victoria	–	–	–	–	17	–	3	1	–	–	5	1	1	–	–	–	2	2	28	4	32	–	1	–	
Trinity	–	–	1	1	10	–	1	1	–	–	1	–	–	–	–	–	–	–	13	2	15	–	1	–	
Western	3	–	1	–	31	2	14	–	11	1	–	–	22	14	–	–	–	1	82	18	100	–	–	–	
McMaster	–	–	2	–	13	–	–	–	–	–	5	1	1	1	–	–	1	–	22	2	24	–	–	–	1
Manitoba	–	–	4	1	39	1	1	–	33	1	14	7	–	–	–	–	9	2	100	12	112	–	–	–	1
Saskatchewan	–	–	6	–	30	–	25	2	10	4	–	–	9	4	17	–	6	–	103	10	113	–	1	–	
Alberta	–	–	–	–	38	1	15	1	13	–	10	2	3	3	1	1	–	–	80	8	88	5	–	–	1
British Columbia	–	–	3	1	26	–	26	2	17	2	5	–	4	2	–	–	20	4	101	21	122	–	–	–	1
Total	6	–	58	4	942	173	209	8	258	14	228	37	521	84	413	1	59	17	2,694	348	3,042	5	9	10	
Queen's	–	–	3	1	42	–	11	–	18	1	17	2	–	3	–	–	–	–	–	–	158[1]	–	–	–	
Ottawa	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	142	37	179	–	–	–	
																			2,836	385	3,379	5	9	10	
PART TIME.																									
St. Dunstan's	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	
King's	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	2	–	2	–	–	–	
Dalhousie	–	–	1	–	12	–	7	–	1	–	31	1	6	1	–	–	20	–	78	2	80	–	–	–	
Acadia	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	2	–	2	–	–	–	
New Brunswick	–	–	1	–	–	–	–	–	–	–	16	–	–	–	–	–	–	–	17	–	17	–	–	–	
Laval	–	–	–	–	54	–	33	–	3	–	33	–	–	–	–	–	–	–	123	–	123	–	–	–	
Montreal	6	–	16	–	133	15	66	–	20	–	35	–	19	–	–	–	–	–	295	15	310	–	–	–	
Trinity	–	–	–	–	–	–	–	–	–	–	5	–	–	–	–	–	–	–	5	–	5	–	–	–	
Western	–	–	3	1	10	–	7	–	6	–	27	4	33	–	–	–	9	13	95	18	113	–	–	–	
Manitoba	–	–	1	–	5	–	32	–	4	–	52	–	–	–	–	–	64	8	158	8	166	–	–	–	
Saskatchewan	–	–	–	–	–	–	–	–	–	–	6	–	–	–	–	–	–	–	6	–	6	–	–	–	
Alberta	–	–	–	–	2	–	2	–	13	–	10	–	18	–	5	–	8	1	58	1	59	–	–	–	
Total	6	–	22	1	217	15	147	–	47	–	219	5	76	1	5	–	101	22	840	44	884	–	–	–	

NOTE.—The totals exclude duplicates between King's and Dalhousie.

[1]Includes 60 tutors, sex not specified.

13.—Universities of Canada: Summary of Student Registration, by Sex, 1926-27.

Name of University.	A Total Registration.			B Number of A also registered in Affiliated Colleges.			Number of Students included in A who are doing: C Work of University Standard.			D Work Preparatory to Matriculation.			E Work not included in C or D.		
	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.
St. Dunstan's, P.E.I.	161	–	161	–	–	–	83	–	83	46	–	46	32	–	32
King's	42	10	52	38[1]	10[1]	48[1]	42	10	52	–	–	–	–	–	–
Dalhousie	525	223	748	38[1]	10[1]	48[1]	525	223	748	–	–	–	–	–	–
Acadia	249	214	463	–	–	–	249	214	463	(20)[2]	(14)[2]	(34)[2]	–	–	–
St. Francis Xavier	186	44	230	–	–	–	140	44	184	46	–	46	–	–	–
Total, N.S.	964	481	1,445	38	10	48	918	481	1,399	46	–	46	–	–	–
New Brunswick	190	57	247	–	–	–	190	57	247	–	–	–	–	–	–
Mount Allison	247	215	462[7]	–	51	51	230	202	432[7]	17	13	30	–	–	–
St. Joseph's College	345	–	345	–	–	–	75	–	75	151	–	151	119	–	119
Total, N.B.	780	268	1,048	–	51	51	493	255	748	168	13	181	119	–	119
McGill	2,015	757	2,772	–	–	–	2,015	757	2,772	–	–	–	–	–	–
Bishop's College	113	34	147	–	–	–	113	34	147	–	–	–	–	–	–
Laval	2,261	3,383	5,644	1,527	2,995	4,522	2,261	506	2,767	–	2,877	2,877	–	–	–
Montreal	6,610	3,139	9,749	1,387	68	1,455	2,862	350	3,212	2,608	1,193	3,801	1,140	1,596	2,736
Total, Que.	10,999	7,313	18,312	2,914	3,063	5,977	7,251	1,647	8,898	2,608	4,070	6,678	1,140	1,596	2,736
Toronto	3,445	2,184	5,629	543[3]	542[3]	1,085[3]	3,445	2,184	5,629	–	–	–	–	–	–
Victoria	392	367	759	(333)	(340)	(673)	392	367	759	–	–	–	–	–	–
Trinity	141	99	240	(103)	(95)	(198)	141	99	240	–	–	–	–	–	–
Western	582	337	919	98	44	142	582	337	919	–	–	–	–	–	–
Queen's	2,371	1,071	3,442	–	–	–	2,100	1,071	3,171	–	–	–	271	–	271
Ottawa	1,768	1,546	3,314	624	1,506	2,130	471	137	608	1,297	1,409	2,706	–	–	–
McMaster	360	217	577	102	81	183	200	126	326	–	–	–	160	91	251
Total, Ont.	8,623	5,386	14,009	1,367	2,173	3,540	6,895	3,886	10,781	1,297	1,409	2,706	431	91	552

13.—Universities of Canada: Summary of Student Registration, by Sex, 1926-27—concluded.

Name of University.	A Total Registration.			B Number of A also registered in Affiliated Colleges.			Number of Students included in A who are doing								
							C Work of University Standard.			D Work Preparatory to Matriculation.			E Work not included in C or D.		
	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.
Manitoba	1,618	840	2,458[4]	195	112	307	1,588	815	2,403	–	–	–	30	25	55
Saskatchewan	1,647	580	2,227[8]	–	–	–	801	477	1,278	–	–	–	846	103	949
Alberta	873	425	1,298[5]	–	–	–	811	425	1,236	–	–	–	62	–	62
British Columbia	902	680	1,582[6]	–	–	–	902	680	1,582	–	–	–	–	–	–
Grand Total	26,569[7]	15,177	42,546	4,514	5,409	9,923	19,744	8,670	28,414	4,165	5,492	9,657	2,660	1,815	4,475

[1]Duplicates between Associated Universities of King's and Dalhousie. [2]Latin and French only. Not included in the total. [3]In Federated Colleges as follows:—Victoria College 333 men and 340 women; Trinity College 103 men and 95 women; St. Michael's College 107 men and 107 women. [4]Not including a great part of 1,088 students in summer and extension courses. [5]Not including a great part of 860 students in vacation courses and a number in extension courses. [6]In addition to 596 not given by sex in short courses. [7]2 men and 4 women or a total of 6 in this table do not reappear in the other tables except Table 8. Their categories are not known. [8]Not including about 19,000 in extension courses, but including 1,048 in vacation courses.

General Note.—The total registration is incapable of being freed from misleading features and it is suggested that the total under "C" be taken as the best index of the University population, especially as it is almost satisfactorily comparable for all universities. The extent of incomparability in this item is mainly the non-separation of intra-mural and extra-mural degree students. In the general registration the inclusion of short course students in the case of some universities and their exclusion in the case of others render the total registration defective.

14.—Universities of Canada: Number of Full Time Students in Arts, Pure Science, Letters and Philosophy, by Academic Years, 1926-27.

Name of University.	Preparatory.	1st Year.	2nd Year.	3rd Year.	4th Year.	Total Full Time Arts, etc. (Under-Graduate)	Graduate.	Number of 1st Degrees (Arts,etc.)	Total Registration.
St. Dunstan's	46	29	12	19	23	83	–	8	161
King's	–	19	16	7	6	48[1]	4	2	52
Dalhousie	–	–	–	–	–	419	17	103	748
Acadia	–	–	–	–	–	231	16	63	463
St. Francis Xavier	46	66	41	43	27	177	7	24	230
New Brunswick	–	–	–	–	–	118	–	24	247
Mount Allison	–	39	52	47	54	192	3	50	456
St. Joseph's	270	29	15	10	18	72	–	18	34[2]
McGill	–	303	298	195	177	973	154[2]	215	2,772
Bishop's	–	–	–	–	–	119	6	26	147
Laval	2,877	–	–	–	–	1,363	3	210	5,644
Montreal	3,801	412	391	345	307	1,455[3]	101	235[4]	9,749
Toronto	–	810	625	480	428	2,343	227	561[5]	5,629
Victoria	–	–	–	Included with Toronto.					
Trinity	–	–	–						
Western	–	205	164	115	91	575	5	95	919
Queen's	–	–	–	–	–	–	–	–	–
Ottawa	2,706	162	84	46	52	344[6]	14[6]	40[7]	3,314
McMaster	–	–	–	–	–	272	27	58[8]	577
Manitoba	–	469	389	232	168	1,258	9	160[9]	2,456
Saskatchewan	–	156	181	131	102	570[10]	24	89[11]	2,227
Alberta	–	71	102	80	90	343	43	81	1,298
British Columbia	–	539	250	185	153	1,127[12]	42	146	1,582
Total of 13 giving students by years	6,869[13]	3,309[13]	2,620[13]	1,935[13]	1,696[13]	9,560	633	1,782	31,192

[1]Evidently one of these was also registered in Theology. [2]Of these 114 are preparing for Master's degrees and 40 for Doctor's degrees; 16 of them are missing in the number of graduate students, presumably because they are also registered in other Faculties or are extra-mural and not counted in the total registration. [3]Includes Arts only and not 91 in Pure Science. [4]Including 6 B.Sc. on the understanding that this degree is awarded to Arts students. [5]Including 415 B.A., 38 B. Com., 103 B.A. Sc., and 5 LL.B. (Commerce and Law are included in Arts in Toronto University). [6]In addition there were 112 in Philosophy, not given by years. [7]24 Ph.B's were not included in the above for the sake of consistency. [8]Not including Brandon degrees. [9]Including 15 B.Sc. assumed to be conferred on students in Pure Science. [10]The complete number of full time students in Arts and Pure Science was 629, so that 59 are missing in the above total. [11]62 B.A. and 27 B.Sc. [12]Not including 50 "partial" full time students preparing for first degree. [13]Included with Toronto.

15.—Number of Degrees Conferred, by Sex of Recipients, 1926-27.

Name of University.	Bachelor degrees.		Master degrees including C.E.		Doctor degrees.		Licentiates, diplomas and certificates.		Total.		Total.
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	
St. Dunstan's	8	–	–	–	–	–	–	–	8	–	8
King's[1]	3	–	–	1	2	–	–	–	5	1	6
Dalhousie	78	51	2	6	30	3	12	–	122	60	182
Acadia	41	31	7	3	5	1	–	–	53	35	88
St. Francis Xavier	15	9	2	3	–	–	–	–	17	12	29
New Brunswick	19	15	1	–	2	–	–	–	22	15	37
Mount Allison	36	18	2	–	4	–	–	–	42	18	60
St. Joseph's	18	–	–	–	–	–	–	–	18	–	18
McGill	206	66	36	6	128	6	6	47	376	125	501
Bishop's	21	6	2	1	4	–	18	–	45	7	52
Laval	268	–	6	–	60	–	153	526	487	526	1,013
Montreal	319	16	55	–	79	–	145	191	598	207	805
Toronto	656	245	64	20	90	3	–	–	810	268	1,078
Victoria[2]	2	–	–	–	–	–	14	–	16	–	16
Trinity[2]	1	–	–	–	–	–	6	–	7	–	7
Western	57	38	10	3	23	1	–	8	90	50	140
Queen's	152	84	13	7	–	–	–	–	165	91	256
Ottawa	66	2	1	3	9	–	27	–	103	5	108
McMaster	57	35	–	2	5	–	3	–	65	37	102
Manitoba	127	100	25	9	32	4	27	18	211	131	342
Saskatchewan	77	38	10	3	–	–	27	–	114	41	155
Alberta	98	48	13	1	2	–	15	9	150	58	208
British Columbia	110	83	8	5	–	–	–	–	118	88	206
Total, (exclusive of duplications)	2,435	885	257	73	497	18	453	799	3,642	1,775	5,417

[1]All degrees except those in Theology entered under Dalhousie.
[2]All degrees except those in Theology entered under Toronto.

16.—Universities of Canada: Financial Statistics, 1926-27.

Note.—See next page for footnotes.

University.	Assets.				Source of Income.					Expenditure.		
	Endowments.	Lands, Buildings and Equipment.	Other Property.	Total Assets.	Investments.	Governments and Municipalities.	Fees.[1]	Other sources.[2]	Total Income.	Current.	Capital.	Total.
	$	$	$	$	$	$	$	$	$	$	$	$
St. Dunstan's, P.E.I.	24,000	259,000	21,000	304,000	900	–	600	48,000	49,500	45,110	4,000	49,110
King's	–	–	–	179,989	9,819	36,457	2,757	16,093	65,126	63,859	–	63,859
Dalhousie	1,306,491	2,400,000	–	3,706,491	78,459	500	92,588	43,079	214,626	223,591	9,839	233,430
Acadia	895,194	1,313,611	27,079	2,235,884	37,493	–	50,077	107,236[3]	194,806	212,426	–	214,426[4]
St. Francis Xavier	801,534	800,000	–	1,601,534[5]	35,374	–	8,493	57,400	101,267	74,435	15,217	89,652
Total N.S.	3,003,219	4,513,611	27,079	7,723,898	161,145	36,957	153,915	223,808	575,825	574,311	25,056	601,367
New Brunswick	50,000	550,000	–	600,000	2,506	25,000	18,148	1,567	47,221	52,421	–	52,421
Mt. Allison	568,600	486,518	–	1,055,118	30,797	–	23,584	57,968	112,349	114,816	–	114,816
St. Joseph's	–	377,552	39,700	417,252	–	–	16,578	64,666	81,244	76,816	6,410	83,216
Total N.B.	618,600	1,414,070	39,700	2,072,370	33,303	25,000	58,310	124,201	240,814	244,043	6,410	250,453
McGill	18,740,968	9,383,570	–	28,124,538	1,117,884	70,750	365,472	362,906	1,917,012	1,932,186	776,250	2,708,436
Bishop's	577,862	261,634	72,308	911,804	27,830	3,500	42,102	2,351	75,783	90,113	–	90,113
Laval	–	–	–	–	–	–	–	–	–	–	–	–
Montreal	1,850,690	2,509,645[6]	1,193,085	5,553,420	104,972	70,200	125,323	30,844	331,339	339,456	111,240	450,696
Total Que[7]	21,169,520	12,154,849	1,265,393	34,589,762	1,250,686	144,450	532,897	396,101	2,324,134	2,361,755	887,490	3,249,245
Toronto	3,645,206	9,148,218	12,707	12,806,131[8]	81,964	1,731,086	457,854	161,526	2,432,430	2,273,455	523,949	2,797,404
Victoria	2,551,627	1,349,508	43,694	3,944,829	112,111	–	44,094	34,325	190,530	165,729	–	165,729
Trinity, 1927-28	760,968	1,128,041	24,575	1,913,584	28,765	–	19,683	103,713	152,161	156,918	–	156,918
Queen's	2,200,000	3,500,000	–	5,700,000	103,625	302,200	198,078	20,545	624,448	623,286	–	623,286
Western	10,696	2,152,544	–	2,163,513	–	305,000	74,316	–	379,316	430,589	4,026	434,615
Ottawa	1,100,000	–	–	1,100,000	–	–	35,000	90,000	125,000	185,000	–	185,000
McMaster	1,049,043	451,184	–	1,500,227	50,774	–	25,028	51,345	127,147	–	–	127,127
Total Ont.	11,317,540	17,729,495	80,976	29,128,284	377,239	2,338,286	854,053	461,454	4,031,032	3,834,977	527,975	4,490,079

16.—Universities of Canada: Financial Statistics, 1926-27—concluded.

University.	Assets.				Source of Income.					Expenditure.		
	Endowments.	Lands, Buildings and Equipment.	Other Property.	Total Assets.	Investments.	Governments and Municipalities.	Fees.[1]	Other sources.[2]	Total Income.	Current.	Capital.	Total.
Manitoba	2,012,742	1,730,005	–	3,742,747	87,500	425,000	197,460	172,999	882,959	930,237	–	930,237
Saskatchewan	31,807	3,826,396	–	3,858,203	1,829	634,077	44,658	15,391	695,955	666,680	43,537	710,217
Alberta	500,000	4,167,904	27,967	4,695,871	25,000	430,456	93,034	83,968	632,458	600,127	30,141	630,268
British Columbia	62,559	3,265,669	30,386	3,296,054	17,873	482,000	157,723	17,821	675,417	581,864	62,886	644,750
Grand total	**38,739,987**	**49,060,999**	**1,492,501**	**89,411,189**	**1,955,475**	**4,516,226**	**2,092,650**	**1,543,743**	**10,108,094**	**9,839,104**	**1,587,495**	**11,555,726**

[1] Other than board and lodging. [2] Including board and lodging. [3] Including $76,942 from dining hall and dormitories. [4] Including $81,961 on dining hall and dormitories which may be partly capital. A dining hall was erected in 1926. [5] Approximate. [6] Not including lands given by the city of Montreal and estimated at $1,000,000. It should also be noticed that the financial items shown for Montreal do not include the great part of the affiliated institutions. Since such institutions, both in the case of Montreal and Laval, form a more important part of the university organization than in the case of most of the other universities, the financial figures are proportionately understated by their non-inclusion. In 1925-26 the expenditure of the classical colleges affiliated to Montreal was $1,135,901 and of other schools $348,752; of the classical colleges affiliated to Laval roughly $705,617 and of other schools $91,808. These figures would add to the expenditure of Montreal almost $1,500,000. This added to the expenditure given in the table would place the figures of Montreal on a more comparable basis with those of other universities. However, the affiliations of McGill and Toronto are also very numerous and not included. It is not always possible to separate in the case of the affiliations of any university, the financial obligations incurred on account of students credited to these universities from the obligations incurred on account of high school, technical and even elementary pupils and students. [7] Excluding Laval. The only items known for Laval are provincial government grant $25,000; value of immovable property $630,000. This of course does not include the affiliated colleges. [8] The items of assets for Toronto are for the year 1926. The total assets for 1927 were $12,936,871. All the other items for Toronto are for the year 1927. The financial items of Toronto are all or practically all independent of those shown for Victoria, Trinity and St. Michael's College.

17.—Professional and Affiliated Colleges of Canada: Number and Sex of Teaching Staff and Students, by Individual Institutions, 1926-27.

Name and Address.	Date of Foundation.	Number of Teaching Staff.			Number of Students.			Affiliation.
		M.	F.	Total	M.	F.	Total	
Agricultural College, Truro, N.S.	1888	10	2	12	61	22	83	
College Ste. Anne, Church Point, N.S.	1890	17	1	18	162	–	162	
Holy Heart College, Halifax, N.S.	1894	8	–	8	62	–	62	
Pine Hill Divinity Hall, Halifax, N.S.	1820	7	–	7	25	–	25	
St. Mary's College, Halifax, N.S.	1841	13	–	13	175	–	175	
Technical College, Halifax, N.S.	1907	13	–	13	71	–	71	
The United Theological College, Montreal, Que.	1925	14	–	14	156	–	156	
Ecole des Hautes Etudes Commerciales, Montreal, Que.	1907	27	–	27	622	28	650	Montreal.
Macdonald College, Ste. Anne de Bellevue, Que.	1907	37	13	50	387	329	716	McGill.
Montreal Diocesan, Montreal, Que.	1873	5	–	5	23	–	23	
Oka Agricultural, Oka, Que.	1893	52	–	52	479	–	479	
Presbyterian College, Montreal, Que.	1865	9	–	9	51	–	51	
Ste-Anne de la Pocatière College, Que.	1859	35	–	35	93	–	93	
Huron College, London, Ont.	1863	6	–	6	22	–	22	
Union Theological College, Toronto, Ont.	–	20	–	20	101	44	145	
Ontario Agricultural College, Guelph, Ont.	1874	78	13	91	761	550	1,311	Toronto.
Ontario College of Pharmacy, Toronto, Ont.	1871	5	–	5	333	23	356	Toronto.
Osgoode Hall School, Toronto, Ont.	1873	6	–	6	296	13	309	
Ontario Veterinary College, Guelph, Ont.	1862	24	–	24	66	1	67	Toronto.
Royal Military College, Kingston, Ont.	1875	38	–	38	183	–	183	
St. Jerome's College, Kitchener, Ont.	1864	15	–	15	180	–	180	
St. Michael's College, Toronto, Ont.	1852	25	–	25	107	107	214[1]	Toronto (Fed.)
Toronto Bible College, Ont.	–	5	1	6	71	126	197	
Evangelical Lutheran Sem. of Canada, Waterloo, Ont.	1911	–	–	–	–	–	–	
Knox College, Toronto, Ont.	1843	4	–	4	–	–	–	
Waterloo College, Waterloo, Ont.	–	12	–	12	48	–	48	
Wycliffe College, Toronto, Ont.	1879	11	–	11	81	–	81	Toronto (Fed.).
Brandon College, Man.	1899	13	7	20	152	195	347	McMaster.
Manitoba College, Winnipeg, Man.	1871	5	1	6	21	9	30	Manitoba.
Manitoba Law School, Winnipeg, Man.	1914	11	–	11	51	–	51	"
Wesley College, Winnipeg, Man.	1877	15	2	17	197	198	395	"
Emmanuel College, Saskatoon, Sask. (1925)	1879	5	–	5	39	–	39	Sask.
Collège Catholique de Gravelbourg, Sask.	1917	14	–	14	196	–	196	Ottawa.
St. Andrew's College, Saskatoon, Sask.	1911	2	–	2	36	–	36	Sask.
St. Chad's College, Regina, Sask.	1907	5	–	5	14	–	14	"
Lutheran College and Seminary, Edmonton, Alta.	1924	4	1	5	–	–	–	
Columbian College, New Westminster, B.C. (1925)	1892	4	13	17	42	96	138	
Collège du Sacré-Cœur, Bathurst-ouest, N.-B.	–	–	–	–	249	–	249	
Classical Colleges of Quebec—								
Chicoutimi (Little Seminary)	1873	40	–	40	610	–	610	Laval.
Gaspé	1926	9	–	9	65	–	65	
Joliette (Little Seminary)	1846	51	–	51	430	–	430	Montreal.
L'Assomption Classical College	1832	39	–	39	358	–	358	Montreal.
Lévis Classical College	1853	64	–	64	736	–	736	Laval.
Mount Laurier (Little Seminary)	1915	26	–	26	134	–	134	Laval.
Montreal (Loyola) Classical College	1896	33	–	33	428	–	428	
Montreal (Ste Marie) Classical College	1848	42	–	42	815	–	815	Montreal.
Montreal (St. Sulpice) Classical College.	1767	32	–	32	430	–	430	Montreal.
Nicolet (Little Seminary)	1803	52	–	52	350	–	350	Laval.
Quebec (Little Seminary)	1663	59	–	59	894	–	894	Laval.
Rigaud Classical College	1851	52	–	52	400	–	400	Montreal.
Rimouski (Little Seminary)	1855	38	–	38	338	–	338	Laval.
St. Alexandre de la Gatineau Classical College	1911	13	–	13	200	–	200	Laval.
Ste. Anne de la Pocatière Classical College	1827	56	–	56	683	–	683	Laval.
St. Hyacinthe (Little Seminary)	1811	40	–	40	441	–	441	Montreal.
St. Jean Classical College	1911	33	–	33	296	–	296	Montreal.
St. Laurent (Little Seminary)	1847	70	–	70	571	–	571	Montreal.

[1]Of these a certain number only are in addition to students entered under Universities.

17.—Professional and Affiliated Colleges of Canada: Number and Sex of Teaching Staff and Students, by Individual Institutions, 1926-27—concluded.

Name and Address.	Date of Foundation.	Number of Teaching Staff.			Number of Students.			Affiliation.
		M.	F.	Total.	M.	F.	Total.	
Classical Colleges of Quebec—concluded.								
Ste. Thérèse (Little Seminary)	1825	42	–	42	362	–	362	Montreal.
Sherbrooke (Little Seminary)	1875	50	–	50	503	–	503	Montreal.
Trois Rivières (Little Seminary)	1860	42	–	42	470	–	470	Laval.
Valleyfield Classical College	1893	31	–	31	280	–	280	Montreal.
Ten Independent non-subsidized Institutions, Que	–	80	–	80	753	–	753	
Eleven Independent non-subsidized Super. Inst., Que	–	65	–	65	471	–	471	
Grand Total	–	1,564	53	1,617	16,473	1,639	18,112	

General Note.—In addition to the above Colleges, there are one or two from which no reports have been received for some time; *e.g.* St. John's College, Winnipeg. There are also certain Colleges doing two years work in Arts. These are sometimes recognized by the Universities to which they are affiliated as "Junior Colleges". Among these are 5 affiliated with the University of Saskatchewan in 1926, *viz.*, Regina College, Campion College, Sacred Heart Academy, St. Peter's College and Luther College. Owing to the existence of these Colleges and the fact that reorganization following the union of the Presbyterian, Methodist and Congregational Churches had not been completed, the figures of the above table are subject to revision.

Section 4.—Scientific and Industrial Research in Canada.

Prior to 1870, the basis of research in Canada was observation and record rather than experiment. Fifty years ago, laboratories, except elementary ones of scant accommodation, were non-existent. The courses in science in the universities did not, before 1878, involve any practical work beyond extremely simple demonstrations. The industries did not concern themselves with scientific investigation, and research was not regarded as an essential feature of the work of the Government Departments, except possibly in the Geological Survey.

Scientific research in Canada began in the 80's, with the institution in the universities of courses in experimental and practical science. Many of the investigators of Canadian origin who have distinguished themselves in the field of science within the last 30 years owe their incentive toward research to the outlook developed by these courses.

Since 1890, Canadian universities have steadily increased their equipment for scientific teaching and research. While many of the teachers have had little time for research or for advanced courses, scientific investigators in Canadian universities have made valuable contributions to the literature of the sciences, and many of them have achieved high distinction.

Scientific societies, such as the Royal Canadian Institute, founded in 1849, and the Royal Society of Canada, founded in 1881, have also promoted research through the publication of papers giving the results of researches in the various departments of science and through the distinction conferred by membership in such societies.

Various Departments of the Dominion and Provincial Governments have maintained scientific laboratories. Some of these have been concerned merely with routine examination or analysis, but in many cases research was undertaken. The research activities of the Government Departments have, however, been inadequate to meet the needs of the situation. Less than 9 years ago, it was estimated that

the amount expended annually by Government laboratories for investigations of all kinds was less than $325,000, of which less than $100,000 was actually expended for research in Government laboratories.

Twenty years ago the value of research was not appreciated by Canadian industries. A number of firms had routine testing or assay laboratories, but until 1905 there were none which employed research for the improvement of their manufacturing processes or of their products. The example of foreign firms has to some extent altered public opinion in Canada on this question, but the number of Canadian firms which apply research to their industrial problems is still very small. In 1917 the Research Council of Canada issued a questionnaire to the industries, when replies received from 2,400 of the leading firms in Canada showed that only 37 had laboratories for research; 83 employed as many investigators and 276 assistants, but the great majority of these were engaged only in routine examinations. Apart from salaries, the total amount expended in 1916 for research by all firms listed did not exceed $135,000.

With the growth of Canadian wealth, the scientific equipment of the leading Canadian universities has been greatly increased and scientific researches are now being prosecuted on a considerable scale, as a result of the research scholarships granted by the National Research Council of Canada, or endowed by various wealthy benefactors in the leading universities of the country. An especially notable achievement is the discovery of insulin, a preparation which indefinitely prolongs the lives of those suffering from diabetes, by Dr. F. G. Banting, Dr. J. B. Collip and Mr. C. H. Best, working under the supervision of Prof. J. J. R. Macleod, Professor of Physiology in the University of Toronto. The Nobel prize in medicine for 1923 was awarded to Dr. Banting and Dr. McLeod for this discovery, and in the same year Parliament voted to Dr. Banting a life annuity of $7,500, to enable him to devote himself entirely to medical research.

The importance of scientific and industrial research has been recognized in recent years by the creation of the Honorary Advisory Council for Scientific and Industrial Research, commonly known as the National Research Council. A brief account of the work carried on by the National Council is appended.

Subsection 1.—The National Research Council.

A synopsis of the history of scientific and industrial research in Canada, also full information regarding the establishment, organization and activities of the Honorary Advisory Council for Scientific and Industrial Research, more commonly known under the short title of "The National Research Council", will be found in previous editions of the Canada Year Book, notably on pp. 53-57 of the 1920 edition. It is therefore, only necessary to repeat that shortly after the outbreak of the Great War, a Committee of the Imperial Privy Council was appointed and under it an Advisory Council for Scientific and Industrial Research was established in 1915 by the British Government, to deal with the development of scientific and industrial research, and its application to the problems of war and peace. The British Dominions were invited to establish similar organizations in order to bring about co-operation of effort and co-ordination of research throughout the Empire. Acting on this suggestion, the Government of Canada in 1916 appointed a sub-committee of the Privy Council to devise and carry out measures to promote scientific and industrial research in Canada. This sub-committee decided to copy the organization adopted in Great Britain and appointed the National Research

Council as an advisory body on questions of scientific and technological methods affecting the expansion of Canadian industries or the utilization of the natural resources of Canada. The Council was also given charge of all matters which might be assigned to it affecting scientific and industrial research in Canada.

The National Research Council now operates under the Research Council Act, 1924 (14-15 Geo. V, c. 64), and in addition to the general powers conferred upon it by the above Act, the following specific duties have been assigned to it:—

To promote the utilization of the natural resources of Canada;

Researches with the object of improving the technical processes and methods used in the industries of Canada, and of discovering processes and methods which may promote the expansion of existing or the development of new industries;

Researches with the view of utilizing the waste products of said industries;

The investigation and determination of standards and methods of measurments, including length, volume, weight, mass, capacity, time, heat, light, electricity, magnetism and other forms of energy, and the determination of physical constants and the fundamental properties of matter;

The standardization and certification of the scientific and technical apparatus and instruments for the Government service and for use in the industries of Canada; and the determination of the standards of quality of the materials used in the construction of public works and of the supplies used in the various branches of the Government service;

The investigation and standardization, at the request of any of the industries of Canada, of the materials which are or may be used in, or of the products of the industries making such a request;

Researches, the object of which is to improve conditions in agriculture.

The Council has also been given charge of and direction or supervision over the researches which may be undertaken, under conditions to be determined in each case, by or for single industrial firms or by such organizations or persons as may desire to avail themselves of the facilities offered for this purpose.

The Government has now decided to carry out the recommendation of the National Research Council for the establishment of research laboratories, through which it will be possible for the Council to carry out more effectively the duties which have been assigned to it, and an initial sum of $750,000 has already been voted towards the capital cost of erecting and equipping the laboratories. It is expected that actual construction will be commenced in 1929 and that the laboratories will be completed before the end of 1930.

In the meantime, the Council is continuing to render the maximum possible service in three main directions:—(a) the training of research workers; (b) the granting of financial assistance toward the prosecution of important approved researches; (c) the co-ordination and stimulation of research work on problems of national importance.

Training of Research Workers.—In order to develop in Canada a corps of highly trained research men for service not only in the universities and technical schools, but also in the industries and technical departments of the Dominion and Provincial Governments, the Research Council has established three classes of

scholarships which it awards under the titles of bursaries, studentships and fellowships. These awards have a value, respectively, of $750, $1,000, and $1,200, and are intended to enable students who have graduated with distinction from a university to continue their post-graduate training in science. These awards are given to the best qualified applicants therefor, the minimum qualifications for a bursary being graduation with distinction from an approved university; for a studentship, one year of post-graduate research experience; and for a fellowship, clearly demonstrated ability to carry on independent research.

During the eleven years ended Mar. 31, 1928, the National Research Council has awarded 391 scholarships to 225 persons. These awards were held in 15 departments of science at 12 Canadian universities. Each grantee worked under the direction of a member of the staff of the university where his award was held, who had agreed to co-operate with the Council in the careful supervision of the work of the grantee.

The main purpose of scholarships is to train men in research work, rather than to achieve valuable results as a consequence of the investigations carried out by grantees, but nevertheless some very valuable work has been carried out under these awards. The fact that 584 scientific papers, by persons holding National Research Council scholarships, have been accepted and published by prominent scientific journals in Great Britain, in the United States and in Canada, gives some indication of the calibre of the work.

During the 11-year period 178 persons had completed their post-graduate training in science under these awards. The National Research Council has therefore increased to this extent the number of research workers available for service in Canadian industries and universities or in Government technical services. Twenty-two of these research workers are continuing their post-graduate studies; 65 are engaged in the teaching profession, 43 of these having received appointments to the staffs of Canadian universities, where the great majority will have an opportunity of securing further scientific training and engaging in research work; 25 are employed in the industries and 25 have accepted positions in the technical branches of the Dominion and provincial Governments; 7 grantees are employed in various capacities other than teaching on the staffs of universities, as in sanatoria, etc. Of 178 scholarship grantees, 14 persons for various reasons are not at present actively engaged in research work, one is deceased and 19 have failed to furnish information regarding their present occupation. Altogether, of the 178 grantees, 144 persons are actively engaged in scientific or associated work in Canada.

Assisted Researches.—During the year ended Mar. 31, 1928, there were in active operation under the auspices of the Council 105 specific investigations carried out in connection with 88 research grants. These investigations were carried out in 25 departments of science at 10 Canadian universities and in 12 Government and industrial laboratories. The departments of science in which these investigations took place were as follows:—physics, 21 investigations; chemistry, 16; botany, 7; bacteriology, field husbandry and mechanical engineering, six investigations each; pathology, animal pathology, plant pathology, and plant breeding, four investigations each; biochemistry, plant biochemistry, biology, geology, mining engineering, and electrical engineering, three investigations each; civil engineering, two investigations; biophysics, entomology, aerodynamics, zoology, oceanography, pharmacology, and ceramics, one investigation each.

The laboratories in which these investigations were carried out were as follows: Universities of British Columbia, Alberta, Saskatchewan, Manitoba, Western Ontario, Toronto, Queens, McGill, Montreal, Dalhousie; Connaught Laboratories; Queen Alexandra Sanatorium; Fort Qu'Appelle Sanatorium; Federal Departments of Agriculture, Mines and National Defence; Board of Grain Commissioners, Winnipeg; Steel Company of Canada; and the Biological Board of Canada.

During the year 1927-28 the research activities of the National Research Council were carried out in every province of the Dominion where facilities were available for work of this nature. It is the policy of the Council to utilize to the fullest possible extent all existing facilities, both in trained man power and equipment, in order to stimulate and co-ordinate research work throughout Canada.

During the past eleven years the Council has expended the total sum of $556,631 in grants in aid of research, of which amount $110,797 was expended during the year 1927-28. More than 40 p.c. of all moneys expended by the Council since it was established have been devoted to the co-ordination and stimulation of research work carried out in university, Government and industrial laboratories throughout Canada.

Associate Committees.—The National Research Council has established two classes of Associate Committees, the main function of the first class being to advise the Council on scientific questions, and of the second, to direct research work on some major problem.

With the object of keeping the Council closely in touch with important research problems requiring attention and with advances in science made from time to time, the Council has established Associate Committees, one in each of the major departments of science. These committees provide the Council with a source of reliable scientific advice in their respective fields. In some cases research work is carried on under the auspices of Advisory Committees, but research is not their main function.

The second group of Associate Committees has been appointed by the Council for the specific purpose of undertaking the organization, co-ordination and prosecution of research work on some major problem or group of problems. This group of committees differs from the first group in that its main function is to undertake the direction of the research work specifically assigned to it, but it also serves in an advisory capacity in its own field.

At the close of the year 1927-28, 24 such Associate Committees were in active operation under the auspices of the National Research Council. These Associate Committees usually meet at least once a year at a convenient time and place to discuss that part of the work of the Council with which they are concerned and to consider the manner in which the committee can most effectively co-operate therein and to make such recommendations to the Council as may be deemed necessary or advisable.

The total research organization actively at work under the auspices of the National Research Council during the year 1927-28 numbered 570, of whom 465 persons served without remuneration. It would be quite impossible for the Council to pay for the service rendered and to provide the whole cost of the work carried out under its auspices, even if its financial resources were much larger than at present.

A very real contribution is being made by these men and by the laboratories which they represent to the development of scientific research in Canada.

Subsection 2.—The Royal Society of Canada.

An account of the origin, history and functions of the Royal Society of Canada, contributed by Prof. J. Playfair McMurrich, Past President of the Royal Society of Canada, appeared at p. 884 of the 1924 Year Book.

Subsection 3.—The Royal Canadian Institute.

An account of the Royal Canadian Institute, contributed by Prof. J. Playfair McMurrich, appeared at pp. 885-6 of the 1924 Year Book.

Section 5.—Public Libraries in Canada.

Under the above heading, a short article appeared on pp. 168-9 of the 1921 edition of the Year Book. Because of the pressure upon the space of the Year Book it is not repeated here. Statistics of Canadian libraries are given at pp. 153-194 of the "Annual Survey of Education in Canada, 1926", published by the Dominion Bureau of Statistics. For Canadian library legislation, see pp. 195-206 of the same report.

Section 6.—Art in Canada.

A short article on this subject appeared at pp. 886-888 of the 1924 edition of the Year Book.

CHAPTER XXIV.—PUBLIC HEALTH AND BENEVOLENCE.

Greatly increased attention has been devoted during recent years to publ health and its related subjects, the work embracing, in addition to the supervis of the general health of the community, the maintenance of hospitals and institutio for the care of needy and indigent persons. In general, the administration of pul health activities and the establishment and maintenance of such institutions is the hands of the various Provincial Governments, under the powers given th in sec. 92 of the British North America Act, 1867. Under their control, mun palities, societies and individuals generally initiate charitable and humane effo depending on the Government to some extent for financial aid and for compet uniform inspection of methods and standards. Exercising particular jurisdict over some phases of the general health of the people of the Dominion is the Depar ment of Health of the Dominion Government, while the Dominion Council Health acts as a clearing-house on many important questions related to the heal of the people.

Public Health.—Considerable diversity in methods of administration public health activities exists among the provinces. Apart, however, from th actual organization of provincial Health Departments and of the administrati bodies charged with the management of hospitals and other such institutions, it w be observed, in the summaries of provincial activities which follow, that particul attention is given to the same branches of public health work in all the province Perhaps the most important of all, and reflecting most clearly the benefits accrui from such work, are the provisions for medical inspection of school children. Th is carried out in some cases by the district or sub-district medical health officer and in others by public health nurses whose activities are confined to it alone. addition to the continual supervision exercised over the health of the childre expert advice and assistance are supplied freely to children, teachers and paren In many cases dental inspection is provided for. While this work has been carri on upon a considerable scale for only a few years, great benefits have already be realized from it, notably general improvement in health and sanitary conditio and in the control and prevention of epidemics.

In other directions also, governmental activities through Departments Health have produced numerous evidences of their value, which may be illustrat by an examination of the death rates from various communicable and other diseas such as are shown in the Vital Statistics chapter of the present volume. In Onta the rate of deaths from tuberculosis decreased from 85·6 to 56·5 per 100,000 betw 1913 and 1927, and that from typhoid fever from 19·4 to 3·4 per 100,000. Wh some other rates have increased, it may be noted that increases are not general the case of communicable diseases and that, in respect of tuberculosis especial the cities of the province show the lowest mortality rates. The reason for t is the fact that public health work is more advanced there than in the towns a rural areas.

Institutions.—The most familiar of all the public institutions established administer and foster the general health of the community is the general hospit common to all cities and towns of any considerable population, and found a

in the more modern and prosperous rural districts. Such hospitals are generally erected and supported by the municipality, their actual administration being in the hands of a board of trustees; their revenue, in addition to that provided by the municipality, is derived in the main from grants from the Provincial Governments, from donations of individuals and societies, and from patients' fees. Admission and treatment are free to all deserving persons who apply for it and whose resources are so limited as to prevent their otherwise receiving proper medical attention, while it is more or less generally expected of others that payments for services shall be made in proportion to costs and the ability of patients to defray them. Second in importance are the houses of refuge and orphanages, homes where destitute adults and homeless children are taken in, fed and clothed until they can support themselves or until homes for them are found elsewhere. Orphans' homes are found in practically every urban and rural community of any size, while refuges or homes for the aged are supported by the larger centres and by county municipalities. Asylums for the insane, also found in all the provinces, differ from the foregoing types in that they are in general owned, supported and administered entirely by the province. In Nova Scotia, however, the insane of each county, together with the inmates of the refuge and orphanage, are, in some instances, cared for in one institution. Other institutions supported by the public include isolation hospitals, maternity hospitals, homes for the deaf, dumb and blind, homes for incurables, infirmaries, homes for epileptics and for lepers, and tuberculosis sanatoria.

Throughout the Dominion many other more or less similar institutions exist whose nature is more independent than that of the types mentioned above[1]. Since these institutions do not receive Provincial Government grants and hence are not in all cases subject to inspection, no complete record showing their number, purpose and the number of inmates can be obtained.

But little historical information on the subject is available. No statistics of public benevolence had been presented in the Canada Year Book for some years before their inclusion in the 1922-23 edition. It seems, however, that until comparatively recently, the caring for needy and destitute persons, as we now recognize it, was largely in the hands of individuals, of whose humane efforts scanty evidence remains for present use. The inability of private effort to cope with a problem of such rapidly increasing dimensions has led to the present Government control of the majority of benevolent institutions.

In the exercise of the powers granted them at Confederation, the various Provincial Governments have enacted legislation governing the regulation of public charities. In Ontario, for example, the Houses of Refuge Act, the Hospitals for the Insane Act, the Private Sanitarium Act, the Sanatoria for Consumptives Act, the Hospitals and Charitable Institutions Act and the Prisons and Public Charities Inspection Act have been passed, dealing with different phases of the subject. Similar legislation by other Provincial Governments also provides for the maintenance of hospitals, the carrying-on of charitable work, the provision of funds, and inspection by competent officials.

Numbers and Types of Hospitals and Charitable Institutions in Canada.—An attempt has been made to bring together in tabular form certain statistics of the number of institutions in the Dominion concerned with the health of the community or carried on as result of benevolent effort. It is, of course, highly desirable

[1]For information regarding Dominion Government hospitals for returned soldiers, see p. 967 of this volume, also pp. 20–29 of the 1920 Year Book.

that not only the mere data of numbers but also those relating to inmates, staff, finances, etc., should be similarly collated for the country as a whole. This, however, is for the present impossible, owing, in some cases, to the incomparability of statistics published by the various provinces and in others to the scarcity or absence of published information. The matter made available, however, is given in as complete and concise a form as possible under the provincial headings below.

Table 1 is designed to show the numbers of institutions in Canada, by provinces, for the years 1926 or 1927.

1.—Number of Public Hospitals and Benevolent Institutions in Canada.

NOTE.—The latest available figures are given. The fiscal years of the various provinces are as follows: Prince Edward Island, Jan. 1 to Dec. 31; Nova Scotia, Oct. 1 to Sept. 30; New Brunswick and Ontario, Nov. 1 to Oct. 31; Quebec, July 1 to June 30; Saskatchewan and Manitoba, May 1 to April 30; and British Columbia and Alberta, April 1 to Mar. 31.

Types.	P.E. Island.[1]	Nova Scotia.[2]	New Brunswick.[2]	Quebec.[2]	Ontario.[2]	Manitoba.[4]	Saskatchewan.[2]	Alberta.[5]	British Columbia.[1]
General Hospitals	3	20	18	66	128	–	63	58	6
Maternity Hospitals	–	1			–	–		1	
Private Hospitals	–	–	4		72	–		–	
Isolation Hospitals	–	–	–		–	–		4	
Tuberculosis Sanatoria	–	1	2	10	12	–	2	2	
Hospitals for the Insane	1	20[3]	1	7	14	3	2	3	
Homes for Infirm	1	–	–		–	–	–	–	
Homes for Incurables	–	–	–		6	1	–	–	
Orphanages	2	18[3]	1	121	31	–	1	–	
Houses of Refuge	–	21[3]	2		73	–		–	
Leper Stations	–	–	1		–	–	–	–	

[1] 1928. [2] 1927. [3] Refuges and orphanages are also maintained as hospitals for the insane in some cases. [4] 1922. [5] 1923.

Hospitals for Mental Defectives.—It is only in the case of hospitals for mental defectives that comparable statistics of institutions throughout the nine provinces are available. Table 2 brings their more important data together and may be taken as giving a general idea of the situation throughout the Dominion.

2.—Statistics of Hospitals for Mentally Defective Persons in the Nine Provinces of Canada, latest year reported.

Items.	P.E. Island.[1]	Nova Scotia.[2]	New Brunswick.[3]	Quebec.[4]	Ontario.[5]
Number of institutions	1	19	1	7	1
Inmates (beginning of year)	295	1,496	734	7,004	9,70
Admissions	79	453	190	2,247	2,25
Discharges and deaths	95	442	165	1,851	2,18
Improved or cured	–	–	–	–	93
Inmates (end of year)	279	1,507	761[6]	7,400	9,77
Staff—Doctors	–	–	2	42	4
Nurses	–	–	43	1,172	1,17
Revenue—Government grants	–	–	–	1,314,147	-
Fees $	–	–	31,007	329,858	602,99
Total $	10,195	–	–	2,011,551	671,00
Expenditure—Salaries $	–	–	51,033	598,545	1,326,20
Buildings and equipment $	–	–	151,023	396,050	2,572,31
Total $	103,726	–	202,056	2,131,318	3,892,51

[1] For the year ended Dec. 31, 1928. [2] For the year ended Sept. 30, 1927. [3] For the year ended Oct. 31, 1927. [4] For the year ended Dec. 31, 1927. [5] For the year ended Oct. 31, 1926. [6] Including two patients on probation.

2.—Statistics of Hospitals for Mentally Defective Persons in the Nine Provinces of Canada, latest year reported—concluded.

Items.	Manitoba.[1]	Saskatchewan.[2]	Alberta.[3]	British Columbia.[4]
Number of institutions	3	2	3	3
Inmates (beginning of year)	1,201	1,767	1,238	2,201
Admissions	211	500	381	542
Discharges and deaths	159	406	310	474
Improved or cured	–	–	205	177
Inmates (end of year)	1,343	1,861	1,309	2,269
Staff—Doctors	268	8	–	9
Nurses		315	–	–
Revenue—Government grants $	–	–	484,688	660,632
Fees $	52,038	145,936	121,870	122,554
Total $	90,322	–	606,558	783,186
Expenditure—Salaries $	196,347	292,772	177,726	305,508
Buildings and equipment $	–	389,544	213,179	133,787
Total $	274,804	682,316	606,558	783,186

[1] Year (10 months) ended Aug. 31, 1922. [2] Year ended Dec. 31, 1927. [3] Fifteen months ended Mar. 31, 1928. [4] Year ended Mar. 31, 1928.

Section 1.—Dominion Department of Health.

The Act of Parliament (9-10 George V, c. 24, An Act respecting the Department of Health), creating the Dominion Department of Health, clearly defined its functions as follows:—to protect the country against the entrance of infectious disease; to exclude immigrants who might become a charge upon the country; to treat sick and injured mariners; to see that men employed on public construction work were provided with proper medical care; to set the standards and control the quality of food and drugs, except meat and canned goods, which are under the Department of Agriculture; to control proprietary medicines and the importation and exportation of habit-forming drugs such as morphine, cocaine, etc.; to prevent the spread of the venereal diseases; to care for lepers and to co-operate with the provinces with a view to preserving and improving the public health. In order to preserve the principle of provincial sovereignty, sec. 7 of the Health Act was inserted. It is as follows:—"Nothing in this Act or in any regulation made thereunder shall authorize the Minister or any officer of the Department to exercise any jurisdiction or control over any Provincial or Municipal Board of Health or other health authority operating under the laws of any Province".

A more detailed description of the activities of the Dominion Department of Health will be found at pp. 956-958 of the 1927-28 Year Book. Under c. 39 of the Statutes of that year the Department of Soldiers' Civil Re-establishment and the Department of Health were merged as one Department.

Dominion Council of Health.—There was also created, in virtue of the Act, a Dominion Council of Health, consisting of the Deputy Minister of Health of Canada, acting as chairman, the chief executive officers of the various provincial Departments of Health and representatives of labour, the farm, public health science, education and women's organizations. Through this body matters of health which affect the country either in whole or in part are discussed, uniformity established and co-operation secured. (For a more complete description of this body, see 1926 Year Book, pp. 908-909.)

Section 2.—Provincial Public Health Activities.

Subsection 1.—Prince Edward Island.

There is no Department of Public Health in Prince Edward Island. The supervision of public health matters is, however, in the hands of the Government of the province, which operates the Falconwood Hospital and Provincial Infirmary, in addition to making money grants to other similar institutions.

In the Report of the Trustees of the Falconwood Hospital and Provincial Infirmary for the year ended Dec. 31, 1928, a total of 279 patients was shown as resident on this date, compared with a total of 295 at the beginning of the year. During the year 79 patients had been admitted, while discharges and deaths totalled 95. Expenditure for maintenance and repair of the institution amounted to $103,726, while revenues from fees and other sources were $10,195.

The grants to other provincial institutions were as follows in 1928:—St. Vincent's Orphanage $1,250, P.E.I. Orphanage $1,250, Charlottetown Hospital $2,000, P.E.I. Hospital $2,000 and Prince Co. Hospital $2,000. In addition the Red Cross Society received a grant of $3,500, the Free Dispensary $200, and the Canadian Tuberculosis Association $1,200.

A full time Provincial Health Officer was appointed in November, 1928.

Subsection 2.—Nova Scotia.

The report of the Provincial Health Officer for the year ended Sept. 30, 1927 includes the reports of the Department of Public Health and the Deputy Registrar-General. Under recent legislation the Provincial Health Officer of the Province was made Deputy Registrar-General as well, thus bringing the two Departments into closer co-operation.

The general death rate for 1926-27 was 11·9. Owing to an unfortunate outbreak of infantile diarrhoea in two localities the death rate for infants rose to 90·8 per 1,000. The number of deaths from diphtheria, scarlet fever and typhoid decreased, while there was a slight increase in the number of deaths from influenza.

Educational work was carried on through weekly letters to local health officers and municipal and town clerks, special publications distributed among the medical profession and the newspapers of the province, special articles dealing with various health matters for publication in the newspapers, the exhibition of models or other public health exhibits and the distribution of literature at the fall or other fairs, and special lectures at the normal school or at other educational gatherings in various portions of the province.

In connection with the anti-tuberculosis work carried on in the province, the examiners reported 2,319 persons examined by them during the year. Among these there were found to be 738 positive cases of tuberculosis, of whom 218 were referred to the Nova Scotia Sanatorium for treatment. The report emphasized the necessity of more adequate provision for the tuberculous poor of the province.

During the year ended Sept. 30, 1927, there were 15,982 pupils inspected by county health nurses, and 5,451 received attention and instruction at the various conferences in different centres. In addition there are manifold activities which receive the attention of these nurses, and their reports show a gratifying reduction in the percentage of pupils who now appear to require medical and dental attention.

Changes in the routine of the nursing service were planned, new material prepared, supplies and information furnished in connection with various activities,

and assistance given with child hygiene conferences, tuberculosis clinics, summer camps for badly nourished children and public health booths at exhibitions and on the agricultural demonstration train.

The laboratory reported a total of 11,659 specimens examined during the year, an increase of 4,676 from 1926.

Hospitals and Benevolent Institutions.—The latest available statistics of hospitals and benevolent institutions in Nova Scotia, as contained in the Report of the Inspector of Humane Institutions for the year ended Sept. 30, 1927, are given in Table 3. While in Table 1 of this section the province is shown to maintain 20 mental hospitals, 18 orphanages and 21 houses of refuge, some of these institutions, numbering 26 in all, are classed under two or more of the three types specified. The statistics are those of government-inspected institutions only. This applies also to tuberculosis sanatoria, of which only one is inspected by provincial officials.

3.—Hospitals, etc., in Nova Scotia, 1927.

Items.	General, Isolation, and Private Hospitals.[3]	Maternity Hospitals.	Sanatoria for Consumptives.	Hospitals and Asylums for the Insane and Poor.
Number of institutions	21	1	1	26
Number of patients (beginning of year)	774	41	175	2,196
Admissions and births	18,651	809	340	755
Total under treatment	19,425	850	626	2,951
Discharges, etc.	18,592	824	329	744
Number of patients (end of year)	833	26	188	2,207
Staff—Doctors	124	5	3	–
Nurses, etc.	576	33	–	–
Receipts—Government grants $	79,083	1,400	99,140	–
Fees $	279,555	18,678	130,567	–
Total[1] $	606,158	32,163	241,080	–
Expenditures—Salaries $	179,523	9,059	88,821	–
Buildings and equipment $	218,829	28,391	40,512	–
Total[2] $	595,921	32,179	241,080	–

[1]Includes other receipts. [2]Includes other expenditures. [3]Figures for staff and finances do not include the Victoria General Hospital.

The number of hospital days afforded to patients in general hospitals during the year amounted to 260,994 and to patients in maternity hospitals 11,900. The numbers of operations performed in general and maternity hospitals were respectively 9,553 and 45. The total government grants of $80,483 to general and maternity hospitals comprised grants of $48,551 by the province and $31,932 by municipalities.

Subsection 3.—New Brunswick.

The New Brunswick Department of Health includes in its activities general sanitation, water-supply and drainage, the abatement of communicable disease, medical inspection of schools, vital statistics, the provincial pathological and public health laboratory, and the general supervision of the 16 health sub-districts into which the province is divided.

The department is administered by the Minister of Health, and is under the immediate direction of a Chief Medical Officer. His staff, which with the Minister forms the Bureau of Health, consists of the chief of laboratories, 4 district medical health officers, 6 medical inspectors of schools, a director of public health nursing

service, a director of venereal clinics and two travelling tuberculosis diagnosticians.

The Chief Medical Officer, in his 11th annual report, summarizes the chief activities of the Department during the year ended Oct. 31, 1928, under the headings already given.

During the year 1927 the births numbered 10,479, the marriages 2,887 and the deaths 4,902, or 25·5, 7·0 and 11·9 per 1,000 population respectively. The death-rate from all causes fell gradually from 15·6 in 1920 to 11·9 in 1927. The infantile mortality decreased from 134·9 in 1920 to 96·0 in 1927, while maternal mortality in the latter year was 6·2 per 1,000 living births. The birth-rate was the second highest in Canada, exceeded only by that of Quebec.

In the school year 1927-8, 61,327 pupils were medically examined and 10,398 successfully vaccinated (those entering school for the first time), while 8,683 defects were found and remedied. Of those examined, about 600 were found unable to pursue their studies with ordinary success on account of mental deficiency. Twelve special schools for such deficients have been established.

A census of mental deficients of the province has been taken in 1927 and 1928, to be completed in the summer of 1929. Up to the present, 1,557 cases have been listed of all ages. The degrees of defect are:—idiots, 82; imbeciles, 289; low grade morons, 564; high grade morons, 622. Fairly full particulars of each individual are compiled.

Hospitals and Benevolent Institutions.—The latest available statistics of hospitals, sanitaria and asylums are shown in Table **4,** compiled by the Chief Medical Officer of New Brunswick. There are no figures available regarding benevolent institutions such as orphanages and homes for the aged.

4.—Hospitals in New Brunswick, 1927.

Items.	General, Maternity and Isolation.	Tuberculosis.	Insane.
Total Hospitals	22	2	1
General	18	–	–
Private	4	–	–
Bed Capacity, total	772	224	750
General	644	–	–
Maternity	66	–	–
Contagious diseases	62	–	–
Number of patients (beginning of year)	432	192	734
Admissions	12,404	367	190
Births	658	–	–
Discharges	12,024	353	100
Deaths	468	55	65
Number of patients (end of year)	444	197	761[1]
Staff—total	593	81	81
Doctors	124	5	2
Nurses, graduate and probation	89	32	8
Others	130	44	35
Revenue—total	$ 516,968·65	186,807·19	127,903·86
Government grants	$ 11,350·00	10,000·00	–
Municipal grants	$ 260,483·60	60,776·00	96,897·00
Fees, other revenue	$ 245,135·05	116,031·19	31,006·86
Expenditures—total	$ 522,264·67	222,270·73	202,055·63
Salaries, etc	$ 120,614·51	77,204·63	51,032·50
Buildings, equipment, supplies, etc	$ 401,649·26	145,066·10	151,023·13

[1]Including two patients on probation.

Subsection 4.—Quebec.

The Provincial Bureau of Health, in charge of the Provincial Secretary, administers the Public Health Act. Twenty inspectors are appointed for the 20 public health districts, their duties being divided between the education of the public

and municipal public health organization. In addition, their services are given in case of consultations, public lectures, maintenance of records of municipalities and medical and sanitary investigations. In addition to the district officers, the Bureau maintains an administrative division, a laboratory division and divisions of sanitary engineering, venereal diseases and vital statistics. The energies of the Bureau are directed mainly toward the prevention of epidemics, more particularly tuberculosis and the more important causes of infant mortality. To this end the Provincial Bureau of Health has established 21 anti-tuberculosis dispensaries and 70 baby clinics, including those receiving Government grants. During the year 1927, in the 21 anti-tuberculosis dispensaries, 20,801 persons applied for examination, and 43,540 consultations were given. X-Ray examinations to the number of 15,527 were made, as well as 3,945 sputum examinations.

The visiting public health nurses paid 49,292 visits in 8,412 families. Copies of public health literature numbering 86,000 were also distributed during the year.

Hospitals and Benevolent Institutions.—Table 5 summarizes the latest statistics on benevolent institutions, compiled from a special report issued on the subject by the Quebec Bureau of Statistics. The 66 hospitals include 4 maternities and 5 *crèches*. In addition, 29 dispensaries are maintained in these institutions, where the principal services are those of medicine, surgery and ophthalmology.

The number of days passed in these institutions by patients during 1927 was 1,791,813. The accommodation available at the end of the year was 7,722 beds; the average cost per patient per day varied from $0.60 to $6.94.

The 120 refuges and orphanages provided 14,840 beds. During 1927, the total number of days passed in these institutions by needy persons was 4,610,435. In addition, 83,299 indigent persons were given help during the year.

5.—Hospitals and Philanthrophic Institutions in Quebec, 1927.

Items.	General Maternity, Isolation and Private Hospitals.	Anti-tubercular Sanatoria.	Hospitals for the Insane.	Homes, Orphanages and Refuges.
Number of institutions	66	10	7	121
Number of patients (beginning of year)	4,779	867	7,004	13,211
Admissions	77,222	1,533	2,247	9,584
Discharges, deaths, etc	76,878	1,407	1,851	9,171
Number of patients (end of year)	5,123	993	7,400	13,624
Staff—Doctors	669	488	42	3,888
Nurses and other employees	4,832		1,172	
Receipts—Government grants[1] $	1,249,877	256,028	1,314,147	455,574
Fees $	2,177,393	141,849	329,858	878,250
Sundries $	3,193,478	60,697	367,546	2,333,558
Total $	6,620,748	458,574	2,011,551	3,667,382
Expenditure—Salaries, etc $	1,502,325	101,851	598,545	502,615
Building and equipment $	1,764,145	137,248	396,050	1,194,760
Sundries $	3,354,278	247,901	1,136,723	1,815,585
Total $	6,620,748	487,000	2,131,318	3,512,960

[1]Provincial and municipal.

Subsection 5.—Ontario.

The Department of Health of Ontario is under a Minister of the Government, who also has charge of the vital statistics of the Province. It includes divisions of sanitary engineering, laboratories, preventable diseases, maternal and child hygiene, medical and dental inspection of schools, industrial hygiene and public health education.

There are eight district health officers and some 25 public health nurses in the field, and the appropriation for the work is upwards of $750,000.

The local health work is carried on by a board of health and a medical officer of health in each of the 900 or more municipalities. Several cities have whole-time health officers, and the total local expenditure reaches nearly $1,500,000.

Provision for the training of medical officers and of public health nurses is made by the universities of the province. A new school of hygiene in connection with the University of Toronto has been in operation since 1927. The Connaught laboratories, which are housed in the school of hygiene, afford ample supplies of the various biological products used in the prevention and cure of disease. These are supplied at low cost to the Government, which in turn distributes them free to the public.

Hospitals and Benevolent Institutions.—The principal statistics of hospitals and similar institutions in Ontario are found in the Report of the Hospitals and Charitable Institutions, containing data relative to government-aided hospitals, orphan asylums and houses of refuge, and in the Report upon the Hospitals for the Insane, Feeble-Minded and Epileptic, relating to the provincially-operated institutions for the care of mental defectives.

The number of general and maternity hospitals given in Table 6 is exclusive of 72 private hospitals which are not required to make detailed returns to the Inspector of Prisons and Public Charities.

6.—Hospitals in Ontario, year ended Sept. 30, 1927.

Items.	General, Maternity and Isolation Hospitals.	Sanatoria for Consumptives.	Hospitals for the Insane.[1]	Orphanages, Refuges, etc.[2]
Number of institutions	134	10	12	76
Number of patients (beginning of year)	6,943	1,508	9,707	5,519
Admissions, births, etc	174,310	2,068	2,251	4,544
Total number receiving treatment	181,253	3,576	11,958	10,063
Discharges, etc	174,147	1,888	2,184	4,513
Number of patients (end of year)	7,106	1,688	9,774	5,550
Staff—Doctors	–	–	48	–
Nurses, etc	–	–	1,179	–
Receipts—Government grants (provincial and municipal) $	684,678[6]	1,083,047	[3]	160,651[6]
Fees, etc $	7,960,910	50,889	602,993	–
Total[4] $	8,645,588	1,481,652	671,001	1,658,569
Expenditure—Salaries, etc $	–	–	1,320,204	–
Buildings and equipment $	–	–	2,572,313	–
Total[5] $	8,162,255	1,330,329	3,892,517	1,661,763

[1]Year ended Oct. 31, 1926. [2]Exclusive of 31 county houses of refuge. [3]These institutions are government-owned and hence do not receive the statutory grants made to other hospitals. [4]Includes other receipts. [5]Includes other expenditures. [6]Provincial grant only.

In addition to the statistics given above it may be said that the total number of days' stay in hospitals and sanatoria during the year amounted to 3,158,172, at an average cost per patient per day of $3.12. The total number of deaths was 8,751, a percentage to the total number of patients under treatment (184,829) of 4·19. The average stay of each patient was 17·1 days, this period, however, being considerably less if general hospitals alone are considered.

With regard to the hospitals for the insane, the average daily population of the 12 institutions during 1926 was 9,471. Discharges, totalling 1,010, included 428 recoveries and 509 cases of improved condition.

Subsection 6.—Manitoba.

The various divisions of the Provincial Board of Health include those of public health nursing, food inspection, venereal disease prevention, vital statistics, recording and prevention of communicable diseases. Under the Superintendent of Provincial Public Health Nurses, a large amount of work is carried on in the fields of education, medical school inspection, child welfare, public service nursing, and in the distribution of literature. The work of other divisions is of a more or less routine nature.

The principal regulations made by the Board, in its administration of the Public Health Act, have relation to:—(1) the occupation of portions of buildings contained below street level, (2) the use of common towels in public places, (3) the use of common drinking cups, (4) barber shops and hair dressing parlours, (5) the use of hydrocyanic acid, (6) the sterilization of wiping rags, etc., and the sale thereof, (7) the notification of infectious and contagious diseases, (8) the prevention of venereal diseases and the establishment of dispensaries for the treatment thereof, (9) slaughter houses, (10) bottling plants, (11) places where food is sold on the premises, (12) the sanitation of summer camps and beaches, (13) the sanitary control of mining, lumber and other similar camps.

No more recent information than that published on pp. 921-922 of the 1922-23 Year Book is available regarding the activities of hospitals and charitable institutions.

Subsection 7.—Saskatchewan.

By an Act to amend the Public Health Act, the Bureau of Public Health was on Mar. 22, 1923, made a Department of Public Health, with a Minister and Deputy Minister in charge.

The following acts are administered by the Department:—Public Health Act; Vital Statistics Act; Union Hospital Act; An Act to Regulate Public Aid to Hospitals; Venereal Disease Act; the Tuberculosis Sanatoria and Hospitals Act.

Six divisions with a director in charge of each, carry out the work of the Department as follows:—the division of administration, under the Deputy Minister, supervises the work of the Department as a whole and formulates general policies regarding health matters; the division of public health nursing and hospital management, which supervises the administration of the maternity grant for needy expectant mothers, arranges for and holds pre-school examination conferences, supervises the work of the public health nurses who do inspection work in schools, home visiting and generalized public health nursing in their districts, including home nursing instruction and classes, issues relief in unorganized districts, supervises the carrying out of the hospital regulations and the paying of the Government grant to Government-aided hospitals and sanatoria. The school nurses of the school hygiene branch of the Department of Education were transferred to this division of the Department of Public Health on May 1, 1928. The division of communicable disease deals with the control of these diseases and distributes sera and vaccines; the division of sanitation supervises food, water, milk and ice supplies, sewerage systems, urban and rural sanitation and union hospital organization; the division of laboratories includes in its work bacteriology, pathology, chemical analyses and medico-legal work; the division of vital statistics compiles records of births, marriages and deaths, etc; the division of venereal disease supervises the free venereal disease dispensaries where free examination and treatment are provided.

Hospitals.—In addition to the hospitals which Saskatchewan has in common with the other provinces, there exists a system known as the union hospital scheme, designed to furnish hospital accommodation in rural districts. Under the provisions of this scheme, two or more rural municipalities may co-operate in arranging to build, equip and maintain a hospital for their residents and provide free treatment, the maintenance charges being taxed on the district as a whole.

7.—Hospitals, etc., in Saskatchewan, calendar year, 1927.

Items.		General, Maternity and Isolation Hospitals.[1]	Sanatoria for Consumptives.
Number of institutions		63	2
Total patients		48,085	1,415
Staff—Doctors		296	10
Nurses, etc		966	92
Receipts—Government grant	$	289,504	167,424
Fees, etc	$	1,952,857	345,921
Total	$	2,242,361	513,346
Expenditures—Salaries	$	599,308	133,913
Buildings and equipment	$	760,697	
Total	$	1,360,005	133,913

[1]Includes 13 Red Cross outposts.

Items.		Hospitals for the Insane.	Homes, Orphanages and Refuges.
Number of institutions		2	1
Number of patients (beginning of year)		1,767	83
Admissions		500	20
Discharges		406	20
Total patients		2,267	103
Number of patients (end of year)		1,861	83
Staff—Doctors		8	1
Nurses, etc		315	17
Receipts—Fees, etc	$	145,936	19,711
Total	$	145,936	19,711
Expenditures—Salaries	$	292,772	12,324
Buildings and equipment	$	389,544	21,085
Total	$	682,316	33,409

Subsection 8.—Alberta.

The Department of Public Health in Alberta was established by an Act of the Provincial Legislature in 1918, and all Acts having reference in any way to the health of the people were placed under its administration. To-day it includes the following branches:—preventive medicine; sanitary engineering and sanitation; public health nursing; approved municipal and private hospitals; social hygiene; vital statistics; public health education; institutions—(a) tuberculosis sanatorium, (b) mental hospitals, (c) training school for mental defectives.

The preventive medicine branch of the department is conducting an intensive campaign against infectious diseases, special attention being given to the foreign-born people of the province. In co-operation therewith the sanitary engineering branch aims to see that provision is made for good housing, good air, good water and the safe and quick removal of all deleterious substances.

The nurses in the public health nursing branch hold clinics of various kinds—prenatal, infant, pre-school and school—in many parts of the province, main clinics being maintained in cities and large towns; rural clinics are sent out from them. Public lectures, cinemas and pamphlets are used to arouse public interest. District nurses, chosen for their resourcefulness and knowledge of maternal nursing, are maintained in remote districts.

Under the Municipal Hospital Act, on the vote of the people of a district a hospital suitable for their needs can be erected, in which patients are received at the rate of $1.00 per day. The cost to ratepayers is approximately 3c. per acre. There are now 20 such municipal hospitals in Alberta.

Free clinics for venereal diseases are maintained in the principal cities, and excellent work is being done in the actual treatment of these diseases, as well as in the education of the public both by lectures and cinemas. All inmates of public institutions are examined and treatment provided for those who need it.

For statistics of the number of hospitals and similar institutions and of the hospitals for the insane, see Tables **1** and **2** of this section.

Subsection 9.—British Columbia.

The Provincial Board of Health, responsible to the Provincial Secretary, administers the laws relating to public health in British Columbia. Its branches comprise the following:—sanitation, venereal clinics, laboratories, tuberculosis, infectious diseases and public health nursing. The sanitation branch has directed numerous recent efforts to the prevention of the spread of communicable diseases by touring motorists, and to the control of campers and squatters along the coast. The laboratories department, in addition to the analysis of specimens, distributes annually various vaccines and antitoxins. The tuberculosis branch has lately been augmented by a travelling diagnostician in tuberculosis and the addition of a portable X-ray machine. The infectious diseases and public health nursing branches are charged respectively with the control of such diseases and with the numerous duties included in public health nursing, principally nursing service, child welfare, school service and dental clinics. The Board of Health collects and publishes annually, in connection with its report, the vital statistics of the province.

Hospitals and Benevolent Institutions.—Table 8 contains a summary of the more important hospital statistics of the years ended Mar. 31, 1927, for general and related hospitals and sanatoria, 1928 for hospitals for the insane and for Tranquille Sanatorium. No data are available at present with respect to refuges and orphanages, except those of the provincial industrial school for boys, which had on Mar. 31, 1928, a total of 149 inmates, largely made up of boys punished for theft and incorrigibility. The three mental hospitals showed an average daily population during the year 1927-28 of 2,191, maintained at a net per capita yearly cost of $366.04, or a daily cost of $1.00. In contrast with records of hospitals for the insane in other provinces, showing a very equal distribution of inmates between the two sexes, these institutions in British Columbia showed, on Mar. 31, 1928, a population of 1,575 males and 694 females, this disproportion being noticeably greater than that existing between the sexes in the total population of the province. A further classification, moreover, of inmates according to country of birth, shows that 39·3 p.c. were Canadian-born, 35·8 p.c. were British-born, while 24·9 p.c. were born elsewhere. The percentage of British-born (other than Canadian-born) is unusually large.

8.—Hospitals, etc., in British Columbia, March 31, 1927.

Items.	General and Maternity Hospitals.	Sanatoria for Consumptives.[1]	Hospitals for the Insane.
Number of institutions	68	1	3
Number of patients (beginning of year)	–	223	2,2[illegible]
Admissions	–	160	5[illegible]
Discharges	–	164	4[illegible]
Total number of persons treated	57,220	383	2,7[illegible]
Total days' treatment	894,978	77,770	[illegible]
Number of patients (end of year)	–	219	2,2[illegible]
Staff—Doctors	52	6	9
Nurses, etc.	2,153	–	[illegible]
Receipts—Government grants $	1,301,216	294,675	660,6[illegible]
Fees, etc. $	1,665,724	62,262	122,5[illegible]
Total[2] $	3,110,849	294,675	783,1[illegible]
Expenditure—Salaries $	1,389,791	119,876	305,5[illegible]
Buildings and equipment $	430,768	62,628	133,737
Total[3] $	3,097,711	294,675	783,1[illegible]

[1]Mar. 31, 1928. [2]Includes other receipts, [3]Includes other expenditure.

Section 3.—Other Public Health Activities.

Subsection 1.—The Canadian Red Cross Society.

A brief description of the organization and activities of the Red Cross Society in Canada appeared on page 923 of the Canada Year Book, 1922-23.

Subsection 2.—The Victorian Order of Nurses.

The activities of the Victorian Order of Nurses since its inception in 1897 are summarized in the Canada Year Book, 1922-23, page 923.

Subsection 3.—Mothers' Allowances.

Five of the nine provinces of Canada provide for the payment of allowances to mothers who are widowed or without adequate means of support. The province of Manitoba was the first to take up the work in 1916, and the example has been followed by the other western provinces and by Ontario.

A statement regarding Mothers' Allowances, showing the numbers of beneficiaries and the scales of payments and methods of administration, was published at pp. 935-6 of the 1925 Year Book; to it the reader is referred.

CHAPTER XXV.—MISCELLANEOUS ADMINISTRATION.

Section 1.—Public Lands.

Subsection 1.—Dominion Public Lands.

The Crown lands of the Dominion of Canada are situated (a) in the Prairie Provinces (Manitoba, Saskatchewan and Alberta), (b) in the belt of 20 miles on either side of the main line of the Canadian Pacific Railway, known as the Dominion Railway Belt of British Columbia, and (c) in a block in northern British Columbia, containing 3,500,000 acres, known as the "Peace River block". Every person who is the sole head of a family and every male who has attained the age of 18 years and is a British subject or declares his intention to become a British subject, is entitled to apply for entry for a homestead. The lands are laid out in townships of 36 sections. Each section contains 640 acres and is divided into quarter-sections of 160 acres. A quarter-section of 160 acres may be obtained as a homestead on payment of an entry fee of $10 and fulfilment of certain conditions of residence and cultivation. To qualify for the issue of the patent, a settler must have resided upon his homestead for at least 6 months in each of 3 years, must have erected a habitable house thereon, and must have at least 30 acres of his holding broken, of which 20 acres must be cropped. A reasonable proportion of the cultivation should be performed in each of the 3 years. A reduction may be made in the area of breaking where the land is difficult to cultivate on account of scrub or stone. Provision is made on certain conditions for residence in the vicinity, in which case the area of cultivation must be increased.

Lands in Saskatchewan and Alberta, south of township 16, are not open for homestead entry, except by actual residents in the vicinity of the land applied for, but such lands may be secured under grazing lease.

Disposal of Dominion Lands in Manitoba, Saskatchewan and Alberta.—According to figures supplied by the Department of the Interior, the total surveyed area (all water-covered land, road allowances, parks, etc., deducted) at Jan. 1, 1929, was 168,177,095 acres. Table 1 shows the distribution of the surveyed area for each of the three Prairie Provinces as at Jan. 1, 1929. In addition to the surveyed area, there are large tracts of land in the northern part of these provinces, which have as yet been only very little explored. The total area of unsurveyed land is 475,843 square miles.

Maps showing the disposition of Dominion lands and lands available for entry, and reports on the resources and development of Manitoba, Saskatchewan, and Alberta, have been issued by the Natural Resources Intelligence Service of the Department of the Interior. Some of these are as follows:—Land Maps of Saskatchewan and Northern Alberta; small Land Map of the Prairie Provinces; Land District Maps of the different Dominion Land Agencies; Manitoba, its Develop-

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ment and Opportunities; Agricultural Loans; the Peace River District of Alber
Description of the Resources and Possibilities of the Province of Saskatchewan, et
Similar reports have been issued with regard to other parts of Canada, such as:—
Natural Resources of Nova Scotia; Natural Resources of Quebec; the Provin
of New Brunswick. With the object of assisting in the settlement an
development of the idle lands in Canada, this Service also publishes lists
unoccupied lands in the Prairie Provinces and New Brunswick, giving a sh
description of the properties, the prices and terms of sale or lease and the owner
names and addresses, thus giving prospective landseekers an opportunity of select
lands suitable to their means and requirements, and affording them an easy me
of getting into direct touch with the owners thereof.

1.—Disposition of the Surveyed Areas in Manitoba, Saskatchewan and Alberta, Jan. 1, 1929.

Items.	Manitoba.	Saskatchewan.	Alberta.	Total.
	acres.	acres.	acres.	acres.
Area under Homestead (including Military Homesteads)	8,375,000	29,620,840	20,065,460	58,061,3
Area under Pre-emptions, Purchased Homesteads, Sales, Half-breed Scrip, Bounty Grants, Special Grants, Swamp lands transferred to Province of Manitoba, etc	5,845,500	6,758,574	3,574,730	16,178,8
Area granted to Railway Companies	3,553,833	15,169,775	13,031,731	31,755,3
Area granted to Hudson's Bay Company	1,273,500	3,351,160	2,402,780	7,027,4
Area of School Land Endowment (one-eighteenth of area surveyed in sections)	1,637,800	3,944,400	3,760,500	9,342,7
Area sold subject to reclamation by drainage	41,066	41,441	39,057	121,5
Area sold under irrigation system	–	44,712	274,359	319,0
Area under Timber Berths (leased)	1,405,824	551,744	1,036,137	2,993,7
Area under Grazing Leases	76,105	3,464,512	3,235,927	6,776,5
Area of Forest Reserves and Parks	2,488,500	6,553,000	17,072,100	26,113,6
Area reserved for Forestry, Park and Pulpwood purposes (inside surveyed tract)	2,453,000	1,637,000	798,000	4,888,0
Area of road allowances	977,302	1,468,830	1,288,882	3,735,0
Area of Parish and River Lots	529,087	84,589	121,221	734,9
Area of Indian Reserves	482,229	1,193,451	1,342,417	3,018,0
Area of Indian Reserves surrendered	77,072	369,481	328,917	775,4
Area of water-covered lands (inside surveyed tract)	4,260,280	1,899,590	2,296,648	8,456,5
Area undisposed of (surveyed)	3,900,000	3,000,000	14,872,000	21,772,0
Total	**37,376,098**	**79,153,099**	**85,640,866**	**202,070,0**

Homestead Entries.—Table 2 gives the number of homestead entries a
cancellations in the fiscal years from 1874 to 1928, providing a record of the grow
of settlement in the Prairie Provinces. From 7,426 in 1900 the number of entr
rose rapidly to 41,869 in 1906, declined to 21,647 in 1907, and rose again to mo
than twice that number in 1911. The largest number of "net" entries was ma
in 1906, when new entries exceeded cancellations by over 30,000. The reco
number of 44,479 entries in 1911 was offset by 22,122 cancellations, leaving "ne
entries of 22,357. It is noteworthy that more homestead entries were made
1928 than in any other year since 1922.

The number of grants made to soldiers from 1919 to 1928 was 1,643, 5,98
2,892, 1,655, 1,212, 710, 584, 576, 468 and 504 respectively. Entries by soldie
cancelled in the years 1919 to 1928 are included with those given in Table
Such cancellations from 1924 to 1928 numbered 630, 615, 510, 574 and 819 respe
ively.

.—Number of Homestead Entries and Number of Homestead Cancellations from 1874 to Mar. 31, 1928.

NOTE.—From 1874 to 1894 the departmental years ended Oct. 31; from 1895 to 1899, Dec. 31; from 900 to 1906, June 30; from 1907, Mar. 31.

Years.	Homesteads.		Years.	Homesteads.		Years.	Homesteads.	
	Number of Entries.	Number cancelled.		Number of Entries.	Number cancelled.		Number of Entries.	Number cancelled.
874.....	1,376	889	1892.....	4,840	1,322	1910.....	41,568	16,832
875.....	499	303	1893.....	4,067	899	1911.....	44,479	22,122
876.....	347	153	1894.....	3,209	648	1912.....	39,151	18,486
877.....	845	457	1895.....	2,394	683	1913.....	33,699	17,101
878.....	1,788	1,377	1896.....	1,857	301	1914.....	31,829	15,854
879.....	4,068	2,045	1897.....	2,384	1,090	1915.....	24,088	12,351
880.....	2,074	679	1898.....	4,848	1,546	1916.....	17,030	10,070
881.....	2,753	937	1899.....	6,689	1,746	1917.....	11,199	9,570
882.....	7,483	3,485	1900.....	7,426	1,096	1918.....	8,319	6,314
883.....	6,063	1,818	1901.....	8,167	1,682	1919.....	4,227	4,115
884.....	3,753	1,330	1902.....	14,633	3,296	1920.....	6,732	7,891
885.....	1,858	597	1903.....	31,383	5,208	1921.....	5,389	7,336
886.....	2,657	812	1904.....	26,073	8,702	1922.....	7,349	7,806
887.....	2,036	459	1905.....	30,819	11,296	1923.....	5,343	7,061
888.....	2,655	668	1906.....	41,869	11,637	1924.....	3,843	4,187
889.....	4,416	639	1907.....	21,647	14,110	1925.....	3,653	4,171
890.....	2,955	794	1908.....	30,424	15,668	1926.....	4,685	3,400
891.....	3,523	934	1909.....	39,081	14,677	1927.....	5,760	5,809
						1928.....	7,233	7,315

Table 3 is a statement of the homestead entries on Dominion lands in the years 919 to 1928. Statistics of the origin of those making homestead entries in the scal years ended 1922 to 1928 are given in Table 4, and financial statistics of ceipts from Dominion lands in Table 5.

The privilege of making pre-emptions or purchased homestead entries was ithdrawn by Order in Council as from Mar. 20, 1918, confirmed by c. 19 of the tatutes of 1918, assented to May 24, 1918.

—Homestead Entries on Dominion Lands in Manitoba, Saskatchewan, Alberta and British Columbia, fiscal years ended Mar. 31, 1919-1928.

Provinces.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
anitoba.....	813	1,232	725	1,488	879	632	464	616	797	688
skatchewan....	1,191	1,918	1,670	2,733	2,104	1,699	1,804	2,363	2,702	2,961
berta.....	2,169	3,448	2,874	2,928	2,207	1,347	1,192	1,556	2,145	3,411
itish Columbia	54	134	120	200	153	165	193	150	116	173
Total.....	**4,227**	**6,732**	**5,389**	**7,349**	**5,343**	**3,843**	**3,653**	**4,685**	**5,760**	**7,233**

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4.—Homestead Entries made in Manitoba, Saskatchewan, Alberta and Brit Columbia, by Nationalities, fiscal years ended Mar. 31, 1922-1928.

Nationalities.	1922.	1923.	1924.	1925.	1926.	1927.	192
	No.	No.	No.	No.	No.	No.	No
Canadians from Ontario	786	589	453	377	424	491	
" Quebec	318	198	136	127	160	230	
" Nova Scotia	83	71	43	43	31	59	
" New Brunswick	54	38	26	17	37	32	
" Prince Edward Island	47	31	14	38	13	27	
" Manitoba	398	299	304	263	341	408	
" Saskatchewan	201	187	146	138	229	333	
" Alberta	220	193	115	92	117	217	
" British Columbia	55	40	40	29	29	32	
Persons who had previous entry	946	844	590	636	696	806	
Newfoundlanders	4	6	3	3	1	–	
Canadians returned from the U.S.	3	3	–	–	–	–	
Americans	1,505	1,019	639	627	842	874	
English	762	575	415	321	388	477	
Scotch	229	133	104	113	113	126	
Irish	92	70	34	45	52	59	
French	63	21	23	12	18	18	
Belgians	37	24	9	11	18	29	
Swiss	17	18	12	20	18	17	
Italians	22	10	5	10	20	15	
Rumanians	48	11	14	12	40	45	
Syrians	2	3	–	1	3	1	
Germans	40	33	29	41	72	60	
Austro-Hungarians[1]	712	420	303	267	–	–	
Austrians	–	–	–	–	359	479	
Hungarians	–	–	–	–	74	123	
Hollanders	23	16	15	10	13	24	
Danes	44	33	20	30	37	53	
Icelanders	19	15	8	18	12	5	
Swedes	173	107	93	80	93	99	
Norwegians	159	113	67	82	92	147	
Russians	168	96	86	133	192	241	
Finns	40	30	26	15	36	35	
Chinese	2	1	–	–	–	2	
Australians	2	1	1	–	–	2	
New Zealanders	3	2	1	–	1	–	
Greeks	3	2	2	3	14	–	
Hindus	–	1	–	1	–	1	
Poles	65	78	52	31	75	148	
Bulgarians	–	–	–	2	5	1	
Jugo-Slavs	–	–	–	–	5	12	
South Americans	2	2	–	–	2	–	
Czechoslovakians	–	–	–	–	7	25	
South Africans	1	7	6	–	3	–	
Armenians	1	–	–	–	–	–	
Mexicans	–	1	6	–	–	–	
British Indians	–	–	–	–	–	–	
Ukrainians	–	–	–	–	–	–	
Other nationalities	–	–	–	5	3	7	
Total	**7,349**	**5,343**	**3,843**	**3,653**	**4,685**	**5,760**	

[1]Austrians and Hungarians were not separated prior to 1926.

5.—Receipts from Patents and Homestead Entries in the fiscal years ende Mar. 31, 1922-1928.

Sources of Receipts.	1922.	1923.	1924.	1925.	1926.	1927.	192
	$	$	$	$	$	$	
Homestead fees	73,540	53,460	38,640	36,500	46,900	57,700	7
Cash sales	761,850	414,279	404,952	410,222	467,601	544,874	73
Scrip sales	–	909	160	612	–	–	
Timber dues	683,491	825,465	847,773	981,400	1,098,692	1,190,975	1,38
Hay permits, mining, stone quarries, etc., cash	1,071,396	823,183	723,763	639,749	793,358	1,084,695	96
All other receipts	328,255	314,480	338,559	425,384	473,646	540,310	60
Gross revenue	2,918,530	2,431,767	2,353,847	2,493,867	2,880,197	3,418,554	3,76
Refunds	119,080	83,152	71,983	102,881	76,684	91,280	7
Net revenue	2,799,450	2,348,615	2,281,864	2,390,986	2,803,513	3,327,273	3,68
Total revenue, 1872 to date	**74,210,966**	**76,559,581**	**78,841,445**	**81,232,431**	**84,035,944**	**87,363,218**	**91,05**
Letters patent for Dominion lands.....No.	13,116	6,973	5,317	4,304	5,484	5,543	
Homestead entries..... "	7,349	5,343	3,843	3,653	4,685	5,760	

Railway Lands.—In the early stages of the settlement of the Northwest, large grants of wild lands were made to the railway companies as subsidies (see Table **12** of the Transportation chapter for details), while the Hudson's Bay Co., under the contract by which the Northwest Territories passed to the Dominion, retained one-twentieth of the lands of the fertile belt. Statistics have been compiled of the sales of land by these companies and the prices at which lands were sold in the fiscal years since 1893, the figures given in Table **6** throwing considerable light on the ups and downs in the settlement of the West. The maximum acreage sold was in 1903, and the maximum amount was received in 1918. It is noteworthy that the sales reached a low point for recent years in 1923, and in 1928 were more than six times those for 1923. Details of sales by the different companies are given for the three latest fiscal years in Table **7**. Their total sales since 1893 were 27,639,587 acres and the total amount received $258,646,773, or an average of $9.36 per acre.

6.—Land Sales by Railway Companies having Government Land Grants and by the Hudson's Bay Company, fiscal years ended 1893-1928.

Years.	Total sales.		Average price per acre.	Years.	Total sales.		Average price per acre.
	Acres.	Amount.			Acres.	Amount.	
		$	$			$	$
1893	120,211	352,847	2·93	1911	1,406,651	19,122,937	13·59
1894	68,668	207,856	3·02	1912	1,329,390	18,224,419	13·70
1895	114,713	222,489	1·94	1913	707,149	9,867,155	13·95
1896	108,016	361,338	3·34	1914	501,575	7,398,191	14·75
1897	222,225	719,016	3·23	1915	192,801	3,279,031	17·01
1898	448,623	1,431,774	3·18	1916	354,886	5,435,949	15·32
1899	462,494	1,520,792	3·28	1917	755,154	12,357,377	16·35
1900	648,379	2,125,146	3·27	1918	1,116,237	20,887,600	18·71
1901	621,027	2,088,269	3·36	1919	1,038,657	18,148,736	17·47
1902	2,201,795	7,746,958	3·56	1920	1,026,157	19,188,225	18·69
1903	4,229,011	14,651,757	3·46	1921	553,630	10,860,756	19·61
1904	1,267,187	5,564,240	4·39	1922	155,239	2,633,572	16·96
1905	990,005	5,046,572	5·09	1923	123,303	1,864,364	15·12
1906	1,642,684	9,871,241	6·01	1924	159,795	2,460,057	15·39
1907[1]	1,237,759	7,697,930	6·02	1925	247,405	3,700,938	14·95
1908	346,693	3,052,461	8·80	1926	457,822	5,594,216	13·01
1909	109,373	2,211,885	11·08	1927	666,479	8,295,685	12·45
1910	1,184,790	15,835,228	13·36	1928	783,604	9,259,759	11·82

[1]Nine months to Mar. 31.

7.—Land Sales by Railway Companies having Government Land Grants, and by the Hudson's Bay Company, in the fiscal years ended Mar. 31, 1926-28.

Companies.	1926.		1927.		1928.	
	Acres.	Amount.	Acres.	Amount.	Acres.	Amount.
		$		$		$
Hudson's Bay Co	184,595	2,276,129	282,670	3,414,539	289,713	3,546,598
Canadian Pacific Railway Co	168,988	2,263,919	249,497	2,979,958	387,034	4,349,779
Manitoba Southwestern Colonization Railway Co	3,723	31,043	3,695	27,043	4,910	46,256
Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Co	7,623	115,603	9,985	142,968	7,888	93,833
Calgary and Edmonton Railway Co	10,145	93,642	8,658	96,799	17,162	205,693
Canadian Northern Railway Co	79,088	1,127,973	107,511	1,586,850	67,714	924,018
Great Northern Central Railway Co	3,660	45,907	4,463	47,531	9,183	93,582
Total	**457,822**	**5,954,216**	**666,479**	**8,295,685**	**783,604**	**9,259,759**

Subsection 2.—Provincial Public Lands.[1]

In the Maritime Provinces, in Quebec, Ontario and British Columbia, t public lands are administered by the Provincial Governments. In Prince Edwa Island all the land is settled.

Nova Scotia.—In Nova Scotia there are no free grants of land; but, under co ditions prescribed by the Lands and Forests Act of the Legislature (c. 4, Acts 19 Crown lands, not exceeding in each case 150 acres, may be granted for agricult u or grazing purposes to applicants of not less than 18 years of age, at the price o per acre, in addition to the expenses of survey. Every such holder must bui house within 2 years from the date of the grant, and if he has resided on the l for 3 successive years and cultivated at least 10 acres shall be entitled to a gra of the land. Leases and grants of Crown lands may also be obtained upon co tions prescribed. The total area of the Crown lands in Nova Scotia is approxima 1,400,000 acres.

New Brunswick.—The area of New Brunswick is about 17,863,000 acres. this the Crown holds about 7,500,000 acres, most of which is timber land. T province is essentially a wooded country, and will in all probability always de a large part of its revenue from forest industries. Practically all the Crown tim lands are held by license for the cutting of timber, most of these licenses expir in 1933, subject to a renewal for an additional 10 years; or pulp or paper licens may be issued for a term of up to 50 years where the licensees undertake to erect enlarge pulp or paper mills within a specified period. While it may safely be sa that the bulk of the Crown lands are better suited to lumbering than agricultu yet there are still some Crown lands well suited to mixed farming, which may taken up by prospective settlers. The maximum allowed to any one settler 100 acres and he is required to reside on the land and cultivate 10 acres of the sa for 3 years before obtaining a grant. For some of the best lands there is a char of $1 per acre, in addition to the settlement duties already referred to. T Provincial Government controls hunting and fishing within the province. Fishi in tidal waters is, however, under the control of the Dominion Government.

Quebec.—In Quebec the area of public lands subdivided and unsold on Ju 30, 1927, was 8,192,092 acres. During the year ended June 30, 1928, 117,107 acr were surveyed; 97,278 acres reverted to the Crown; 158,348 acres were grant for agricultural and industrial purposes, etc.; adding to the acreage available June 30, 1927, the area surveyed and the areas that reverted, and deducting sa and grants, there remained, subdivided and unsold on June 30, 1928, 8,248,129 acr Agricultural lands in 100-acre lots are available for settlement upon prescrib conditions at 60 cents per acre, on application to the Department of Colonizati Mines and Fisheries.

Ontario.—In Ontario the public lands which are open for disposal are chie situated in the districts of Muskoka, Parry Sound, Nipissing, Sudbury, Algom Thunder Bay, Kenora and Rainy River, and in the counties of Haliburton, Pet borough, Hastings, Frontenac, Lennox and Addington and Renfrew. In Northe

[1]For copies of the detailed regulations governing the disposal of provincial Crown lands, applicati should be made as follows:—Nova Scotia, to the Secretary for Industries and Immigration, Halifax; N Brunswick, to the Deputy Minister of Lands and Mines, Fredericton; Quebec, to the Deputy Minister Lands and Forests, Quebec; Ontario, to the Minister of Lands and Forests, Parliament Buildings, Toron British Columbia, to the Deputy Minister of Lands, Victoria.

Ontario, which comprises the territory lying north and west of the Ottawa and French rivers, the townships open for sale are subdivided into lots of 320 acres or sections of 640 acres, and a half-lot or quarter-section of 160 acres is allowed to each applicant at the price of 50 cents per acre, payable one-fourth cash and the balance in 3 annual instalments, with interest at 6 p.c. The applicant must be male (or sole female) head of a family, or a single man over 18 years of age. The conditions of purchase require actual occupation by the purchaser, the erection of a house, the clearance and cultivation of at least 10 p.c. of the area, and 3 years' residence. Proxy regulations enable an individual to purchase a half lot of 160 acres and place an agent in residence, but the duties to be performed before issue of patent are double those required in ordinary purchases. In the Districts of Cochrane and Timiskaming a unit of 80 acres, more or less, is the limit to which one individual is entitled; the residence duties are the same as in other parts of the province, but the area to be cleared and put under cultivation amounts to 15 acres. After a purchaser has 50 acres cleared and under cultivation on his lot he may purchase an adjacent 80 acres upon which he is required to clear at least 30 acres before the issue of patent, but on this second parcel no buildings or residence are required.

Free grants are available on lands within the districts of Algoma, Nipissing, Thunder Bay, Sudbury, Rainy River and Kenora, and between the Ottawa river and Georgian bay, comprising portions of the counties of Renfrew, Frontenac, Addington, Hastings, Peterborough and Haliburton and the districts of Muskoka and Parry Sound. Grants of 160 acres are made to either single or married men in free grant territories where the land is subdivided in lots of 320 acres. In the Huron and Ottawa territory an allowance for waste lands may increase the grant of a single man to an area not exceeding 200 acres, while heads of families may secure 200 acres free and purchase an additional 100 acres at 50 cents an acre. The settlement duties are as follows:—(a) at least 15 acres to be cleared and brought under cultivation, of which 2 acres at least are to be cleared and cultivated annually; (b) a habitable house to be built, at least 16 by 20 feet in size; (c) actual and continuous residence upon and cultivation of the land for 3 years after location, and thence to the issue of the patent. The mines and minerals and all timber other than pine are covered by the patent.

Returned soldiers who enlisted and rendered overseas service with the Canadian Expeditionary Forces are each entitled to an allocation of 160 acres free (except in the districts of Cochrane and Timiskaming, where only 80 acres are allowed), in any township regularly open for sale, subject nevertheless to the performance of settlement duties.

Ranching lands may be obtained on reasonable terms in waste and wooded areas, the valley of the Trent river, lying between lake Ontario and Georgian bay, affording good opportunities for cattle and sheep raising. The maximum annual rental is 5 cents an acre, on easy stocking conditions. Leases may be issued on condition that there be regularly maintained on the land such number of head of stock as may be consistent with the resources of the area covered.

More than 20,000,000 acres of the very finest arable land await the plough. Ontario is $3\frac{1}{2}$ times as large as the British Isles, $1\frac{1}{2}$ times as large as Texas, and almost twice the size of France or Germany. From east to west its borders are 1,000 miles apart, and from north to south 1,075 miles. Recent extensive colonization road building has made accessible vast tracts of untilled farm land and virgin forests in Northern Ontario.

Loans are made to settlers in the northern and northwestern districts, the maximum amount of any loan being $500, with interest at 6 p.c. per annum, upon such terms and conditions as the Loan Commissioner may approve. The Government is anxious that all *bona fide* settlers shall take full advantage of this opportunity to secure any needed loan, and full information respecting it may be secured on application to the various crown lands agents, or direct from the Settlers' Loan Commissioner, Toronto.

Sites for summer cottages may be acquired by lease under reasonable terms and conditions in Algonquin and Rondeau Provincial Parks, and by purchase in certain other sections of the province. Islands in Timagami are leased without building conditions, but islands elsewhere are sold in 5-acre parcels, subject in each case to the erection within 18 months of a building to the value of $500. The minimum price of mainland is $10 per acre and of islands $20 per acre.[1]

Manitoba.—The Provincial Government of Manitoba has control of 268,000 acres of unsold lands. Part of these consist of areas transferred by the Dominion Government many years ago as "swamp lands", practically all of which has now been reclaimed, and the remainder are selected railway lands from the grant of the former Manitoba and Northwestern Railway Company.

As most of these lands are located in some of the best farming districts of Manitoba and well within the southern half of the province, they present a particularly attractive proposition to intending actual settlers. Railway shipping facilities are excellent, while graded roads are, generally speaking, close at hand and schools are within easy reach.

Intending settlers and others are afforded the choice of selecting from this unsold area lands suitable for grain growing, mixed farming or stock-raising, and for the purpose of placing them within easy reach of all, very reasonable prices have been placed upon them. The Province also possesses marsh lands that are particularly well adapted to muskrat farming, an industry that is now becoming very firmly established in Manitoba by reason of the very favourable climatic conditions and the abundant supply of the various roots and grasses upon which the muskrat thrives. The terms of sale are one-twentieth of the purchase price in cash, the balance being payable in 15 equal annual payments with interest at the rate of 6 p.c. per annum.[2]

British Columbia.—In British Columbia there are large areas of free grant lands. Any British subject, being the head of a family, a widow, a *femme sole* who is over 18 years of age and self-supporting, a woman deserted by her husband or whose husband has not contributed to her support for 2 years, a bachelor over 18 years of age, or any alien on making a declaration of his intention to become a British subject, may pre-empt free 160 acres of unoccupied and unreserved surveyed Crown lands, not being an Indian settlement and not carrying more than 8,000 feet per acre of milling timber west of, and 5,000 feet per acre east of the Cascade range. Fees payable include $2 for recording, $2 for certificate of improvement and $10 for Crown grant. Residence and improvement conditions are imposed, and land can only be pre-empted for agricultural purposes. After occupation for 5 years and making improvements to the value of $10 per acre, including clearing and cultivation of at least 5 acres, the pre-emptor may obtain certificate of

[1]Further particulars may be obtained on application to the Minister of Lands and Forests, Parliament Buildings, Toronto, Ont.

[2]For further particulars apply to the Deputy Provincial Lands Commissioner, Parliament Buildings, Winnipeg.

improvement and Crown grant. The fact that an applicant has previously homesteaded in another province does not preclude him from pre-empting in British Columbia. Unsurveyed lands cannot be pre-empted.

Homesite leases of an area not exceeding 20 acres, surveyed or unsurveyed, may be obtained for occupation and cultivation—this being a provision to enable fishermen, miners or others to obtain homesites—at a small rental, under improvement conditions, including the building of a dwelling in the first year, title being procurable after 5 years' occupation and completion of survey.

Under the Land Act, vacant and unreserved Crown lands, surveyed or unsurveyed, may be purchased in quantities not exceeding 640 acres for agricultural purposes on improvement conditions. The Minister may require improvements to the value of $5 per acre within 4 years of allowance of the sale, and Crown grant may be withheld until it is certified that improvements are made. The minimum price of first class (agricultural) lands is $5 per acre; second class (grazing) lands $2.50 per acre. The purchaser of surveyed land is charged an additional 50c. an acre for the survey; in the case of unsurveyed lands the applicant must have the area he applies for surveyed at his own cost.

Crown lands are leased, subject to covenants and agreements deemed advisable, for agricultural or industrial purposes—for hay-cutting up to 10 years; for other purposes, except timber-cutting, up to 21 years; for any industrial or other special purpose, with approval of the Lieutenant-Governor in Council, for not over 99 years.

The Land Settlement Board has selected a number of land settlement areas contiguous to the Canadian National and Pacific Great Eastern railways. Lands within these areas are sold on easy terms for farming purposes, conditional upon development, prices being usually from $3 to $10 an acre, a small cash payment being required and the balance spread over a term of years to suit the purchaser. Returned British Columbia soldiers are entitled to abatement of $500 on purchase price. The Board has power to enforce orders on those owning land within an area to improve it, and to levy a penalty tax for failure, also power to procure compulsory sale of undeveloped land. To establish settlers, loans of from $250 to $10,000 are made by the Board for development purposes, not exceeding 60 p.c. of the improved value of the land offered as security.

Timber-cutting rights are acquired by timber-sale. The applicant locates the timber, and, application being made, the area is cruised, surveyed if necessary, and advertised for sale by tender. All particulars are obtainable from the Forest Branch, Department of Lands. Information regarding water-rights for power, irrigation, etc., may be obtained by addressing the Water Rights Branch, Department of Lands.

The area of land administered by the province is 211,336,560 acres, of which 182,596,293 acres are vacant and unreserved; 8,570,391 acres are included in Indian, park, game, forest and other reserves, and 6,806,787 acres in timber, pulp, coal, grazing and other leases or licenses. The total area of surveys at Dec. 31, 1927, was 33,178,559 acres, including 22,900,466 acres of land surveys, 9,078,015 acres of timber, 678,166 acres of coal lands and 521,912 acres of mineral claims. The area included in cities is 74,487 acres, in district municipalities 871,853 acres, and in village municipalities 3,055 acres.

The land area of the province is 226,186,240 acres, of which 92,800,000 acres is above timberline and 91,432,100 acres is forested—39,352,000 acres carrying over 1,000 ft. per acre and 17,281,600 acres from 5,000 to 30,000 ft. per acre. The area

suitable for agriculture is estimated at 22,618,000 acres. On Vancouver island an area of 2,110,054 acres is included in the Esquimalt and Nanaimo Ry. land grant, embracing the southeastern portion of the island, and applications for lands in this area are to be made to the land agent of that railway at Victoria.

Section 2.—National Defence.

Before the outbreak of the war, the Canadian Militia consisted of a Permanent Force, which on Mar. 31, 1914, numbered 3,000 officers, non-commissioned officers and men, and an Active Militia, which at the same date numbered 5,615 officers and 68,991 non-commissioned officers and men. After the outbreak of the war on Aug. 4, 1914, successive contingents of troops of all arms were recruited, equipped, trained and despatched by the Canadian Government to Great Britain for active service. When hostilities ceased on Nov. 11, 1918, there had been sent overseas for active service in the Canadian Expeditionary Force about 418,000 officers, non-commissioned officers and men.[1]

Organization.—Prior to 1922, three Departments of the Canadian Government were concerned with the defence of Canada, *viz.*:—the Department of Militia and Defence; the Department of Marine and Naval Service; the Air Board.

During the session of 1922, the National Defence Act was passed, consolidating the Naval Service, the Air Board and the Department of Militia and Defence into the Department of National Defence. This Act became effective by proclamation on Jan. 1, 1923. Under it there is a Minister of National Defence and a Deputy Minister of National Defence. To advise the Minister, there has been constituted, by Order in Council, a Defence Council, consisting of:—a president (the Minister), a vice-president (the Deputy Minister), and the following members:—the Chief of the General Staff, the Chief of the Naval Staff, together with the Adjutant-General, the Quartermaster-General and the Director, Royal Canadian Air Force, as associate members. There is also a Secretary of the Council.

Subsection 1.—Military Forces.

The Militia of Canada is constituted by the Militia Act. The Active Militia is divided into the Permanent and the Non-Permanent Militia.

Permanent Militia.—The Permanent Force consists of the following units:—

Cavalry.—The Royal Canadian Dragoons; Lord Strathcona's Horse (Royal Canadians).
Artillery.—The Royal Canadian Horse Artillery Brigade ("A", "B" and "C" Batteries); Royal Canadian Artillery (Nos. 1, 2, 4 and 5 Heavy Batteries and No. 3 Medium Battery).
Engineers.—Royal Canadian Engineers (13 detachments).
Signals.—The Royal Canadian Corps of Signals.
Infantry.—The Royal Canadian Regiment; Princess Patricia's Canadian Light Infantry; The Royal 22nd Regiment (a French-Canadian regiment).
Army Service Corps.—The Royal Canadian Army Service Corps (12 detachments).
Medical Corps.—The Royal Canadian Army Medical Corps (12 detachments).
Veterinary Corps.—The Royal Canadian Army Veterinary Corps (8 detachments).
Ordnance Corps.—The Royal Canadian Ordnance Corps (12 detachments).
Pay Corps.—The Royal Canadian Army Pay Corps (12 detachments).
Military Clerks.—The Corps of Military Staff Clerks (12 detachments).

The strength of the Permanent Active Militia is limited by the Amending Act of 1919 to 10,000, but at present the limited establishment is less than 3,700.

[1]For the detailed expenditures of the Canadian Government on account of war appropriations in the fiscal years 1915-1921, see the Canada Year Book, 1921, p. 798.

Schools of Instruction.—The Canadian Small Arms School.—This is the only school which is an independent unit of the Permanent Force, but at all stations of the Permanent Force in Canada there are conducted Royal Schools of Instruction.

Non-Permanent Militia.—The Non-Permanent Militia consists of:—

35 Regiments of Cavalry and Mounted Rifles.
63 Field Batteries, Canadian Artillery.
12 Medium Batteries, Canadian Artillery.
11 Heavy Batteries, Canadian Artillery.
3 Anti-Aircraft Sections, Canadian Artillery.
15 Field Companies of Engineers.
2 Fortress Companies of Engineers.
7 Field Troops of Engineers.
20 Signal Companies.
2 Fortress Signal Companies.
7 Signal Troops.
23 Contingents, Canadian Officers Training Corps.
15 Machine Gun Units.
122 Battalions of Infantry.
12 Divisional Trains, Canadian Army Service Corps.
40 Units of the Canadian Army Medical Corps.
11 Detachments Canadian Army Veterinary Corps.
11 Detachments of the Canadian Dental Corps.
11 Detachments of the Canadian Ordnance Corps.
13 Detachments of the Canadian Postal Corps.

The total establishment of the Non-Permanent Militia is 9,424 officers and 115,455 other ranks, as shown in the following table.

8.—Permanent and Non-Permanent Active Militia in Canada, 1928.

Arms of Service.	Permanent Active Militia.		Non-Permanent Active Militia.	
	Personnel.	Horses.	Personnel.	Horses.
Staff and General List	49	–	–	–
Cavalry and Mounted Rifles	405	276	12,802	7,439
Field Artillery	418	231	9,160	6,532
Medium Artillery	49	22	1,549	984
Heavy Artillery and Anti-aircraft Sections	240	9	1,426	45
Engineers	278	22	3,421	812
Signals	212	–	4,763	1,687
Railway Corps	–	–	373	–
Infantry	852	35	74,006	84
Officers' Training Corps	–	–	4,098	–
Machine Gun Corps	–	–	6,502	744
Army Service Corps	273	48	1,245	286
Non-Combatants	908	–	5,534	828
Total	**3,684**	**643**	**124,879**	**19,441**

Reserve Militia.—In addition to the Active Militia, there is also the Reserve Militia, a framework designed to serve as a basis for contingent military organization. Drill and training are voluntary and entail no expense to the public.

The reserve formations of the Active Militia, as distinguished from the Reserve Militia mentioned above, comprise:—

The Reserve of Officers (general list).
Reserve unit for each active unit.
Reserve Regimental Depots (Cavalry and Infantry).

The reserve units of the Active Militia are intended for the purpose of providing for the organization of the officers and men who have completed their service in the Active Militia or who have otherwise received a military training.

On completion of service in the Active Militia men are not posted automatically to reserve units. These units are recruited by specific enlistment.

Military Districts.—For the command, training and administration of the Canadian militia, Canada is divided into 11 military districts, each under a commander assisted by a district staff.

Militia Appropriations.—The militia appropriations for the six fiscal years ended Mar. 31, 1924-1929, are shown in Table 9.

9.—Money voted by Parliament for the Militia, fiscal years ended Mar. 31, 1924-29.

Items.	1924.	1925.	1926.	1927.	1928.	1929.
	$	$	$	$	$	$
Administration	327,000	301,000	301,000	301,000	317,000	317,000
Cadet Services	450,000	400,000	400,000	400,000	500,000	500,000
Contingencies	30,000	30,000	30,000	30,000	40,000	40,000
Engineer Services and Works	544,210	500,000	566,000	566,000	803,900	830,000
General Stores	491,600	390,000	390,000	390,000	607,799	891,800
Manufacturing Establishments	457,890	420,000	420,000	420,000	472,395	587,000
Non-Permanent Active Militia	1,883,000	1,610,000	1,710,000	1,660,000	2,084,300	2,315,000
Permanent Force	5,290,000	4,800,000	4,800,000	4,800,000	4,800,000	4,950,000
Royal Military College	365,000	365,000	365,000	365,000	365,000	375,000
Topographic Survey	45,000	35,000	35,000	35,000	40,000	45,000
Transport and Freight	185,000	160,000	160,000	160,000	165,000	215,000
Total	**10,068,700**	**9,011,000**	**9,177,000**	**9,127,000**	**10,195,394**	**11,065,800**
Civil Government	764,681[1]	744,551[1]	726,701[1]	753,889[1]	763,966[1]	790,505[1]
Grand Total	**10,833,381**	**9,755,555**	**9,903,701**	**9,880,889**	**10,959,360**	**11,856,305**

[1]Department of National Defence.

Subsection 2.—The Naval Service.

The Naval Service of Canada was established by the Naval Service Act, 1910 (9-10 Edw. VII, c. 43), the main provisions of which were described in the Year Book of 1910, pp. xxvi-xxix.

The Department of Naval Service was amalgamated with the Department of Militia and Defence and the Canadian Air Board, to form the Department of National Defence, in 1922.

The Royal Canadian Navy and its Reserve Forces are under the direction of the Chief of the Naval Staff, who is a member of the Defence Council. The Service consists of:—

1. Headquarters at Ottawa (permanent);
2. Royal Canadian Navy (permanent);
3. Royal Canadian Naval Reserve (non-permanent);
4. Royal Canadian Navy Volunteer Reserve (non-permanent).

Royal Canadian Navy.—The Royal Canadian Navy is composed of 94 officers and 616 ratings. A large majority of the men of the R.C.N. are serving under 7-years' engagements. A small proportion consist of specialist gunnery, torpedo, and engine room ratings, lent from the Royal Navy, and a small proportion are ex-Royal Navy petty officers and men serving under special service engagements of from 2 to 5 years.

A proportion of the officers of the Royal Canadian Navy serve periodically in ships of the Royal Navy, to acquire experience in capital ships, light cruisers, etc., and training courses are arranged for selected officers at the instructional schools of the Royal Navy to qualify in war staff, gunnery, torpedo, wireless, etc., duties. Courses for selected men in the gunnery, torpedo and mechanical training schools of the Royal Navy are similarly arranged.

The ships of the Royal Canadian Navy are:—

H.M.C.S. Champlain (destroyer—in commission);
H.M.C.S. Vancouver (destroyer—in commission);
H.M.C.S. Thiepval (minesweeper—in commission);
H.M.C.S. Armentières (minesweeper—in commission);
H.M.C.S. Festubert (minesweeper—in commission);
H.M.C.S. Ypres (minesweeper—in commission).

Naval training establishments, comprising naval barracks, gunnery drill sheds, with all modern appliances for teaching gun-laying, sight-setting, etc., parade grounds and other equipment, are maintained at Halifax and Esquimalt. Naval dockyards, with work shops, etc., for refitting and supplying necessary stores to H.M.C. ships, are also maintained at Halifax and Esquimalt.

Royal Canadian Naval Reserve.—The establishment of the Royal Canadian Naval Reserve is 70 officers and 430 men recruited from amongst sea-faring personnel. Officers have been appointed to act as registrars at Halifax, Charlottetown, Saint John, Quebec, Montreal, Victoria and Vancouver.

Officers and men of the Royal Canadian Naval Reserve attend naval training at Halifax and Esquimalt for 42 days for the first year of enrolment and for 14 days annually thereafter. They are permitted to volunteer for service afloat up to a maximum of 6 months during each period of enrolment. The period of enrolment in the Royal Canadian Naval Reserve is 5 years.

Royal Canadian Naval Volunteer Reserve.—The establishment of the Royal Canadian Naval Volunteer Reserve is 70 officers and 930 men, distributed as follows:—Halifax (half company); Saint John (half company); Charlottetown (half company); Quebec (half company); Montreal (company); Ottawa (half company); Toronto (company); Hamilton (half company); Winnipeg (company); Saskatoon (half company); Regina (half company); Edmonton (half company); Calgary (half company); Vancouver (half company); Prince Rupert (half company).

Each company or half company is under the immediate command of an officer of the R.C.N.V.R., appointed as company commanding officer. The company commanding officer is assisted by other commissioned officers of the force.

A petty officer instructor (a highly qualified ex-petty officer of the Royal Navy or of the Royal Canadian Navy) is employed at each company headquarters to give instruction to men of the company in gunnery, seamanship and other naval subjects.

Each officer and man of the R.C.N.V.R. performs annually a minimum of 30 drills of not less than one hour's duration at company headquarters. In actual practice 40 to 50 drills have been performed annually by each member of the company. Officers and men also attend from 2 to 3 weeks' naval training annually at the naval bases at Halifax or Esquimalt.

Officers and men who can obtain the necessary leave of absence are permitted to perform a maximum of 4 months' voluntary service during each period of enrolment, and a large number have availed themselves of this opportunity of gaining extended naval experience under sea-going conditions. The period of enrolment in the R.C.N.V.R. is 3 years.

Subsection 3.—Air Services.

Under the Act creating the Department of National Defence, the powers, duties and functions vested in the Air Board by the Air Board Act of 1919 are now administered under the direction of the Minister of National Defence.

The Air Services have three functions:—

(1) The air defence of the country.
(2) The conduct of flying operations for the Civil Services of the Government.
(3) The control of civil aviation.

On July 1, 1927, these Services, which up to that date had all been administered by the Director, Royal Canadian Air Force, under the Chief of Staff, were reorganized and divided into two divisions, as follows:—

(a) Military.

Royal Canadian Air Force.—The Royal Canadian Air Force, under the Chief of the General Staff, administers and controls all military air operations. The functions of the Royal Canadian Air Force are as follows:—

(a) To provide adequate training facilities for all Government Air Services.
(b) To provide a nucleus air force around which service units can be formed in the event of war.
(c) To build up a reserve of pilots and mechanics.

The principal station of the Royal Canadian Air Force is at Camp Borden, Ontario, with other units at Vancouver and Ottawa.

The R.C.A.F. Station, Camp Borden, provides training for officers and airmen of the permanent and non-permanent Royal Canadian Air Force, and also summer training for provisional pilot officers. Training is also provided and trained personnel supplied to the Civil Division of the Air Services. The training covers flying and ground subjects, co-operation with military services, and such other courses of instruction as may be necessary.

The R.C.A.F. Station, Vancouver, provides a seaplane training base for the Royal Canadian Air Force, as the R.C.A.F. Station, Camp Borden, only provides training on land machines.

The strength of the Permanent Royal Canadian Air Force, as at Dec. 31, 1928, was 87 officers and 581 other ranks.

(b) Civil.

To meet the growing needs of civil aviation, the following three branches were organized, under the Deputy Minister:—

Civil Government Air Operations.—This Branch is charged with the carrying out of all air operations required by any Dominion Government Service, including the forest protection, survey and other miscellaneous work now carried out for the Departments of the Interior, Mines, Agriculture, Indian Affairs, Customs, Public Works, Railways and Canals, Marine and Fisheries, etc. The headquarters of the Branch are at Ottawa, and its operating bases are as follows:—High River, Alta.; Winnipeg, Man.: sub-bases at Lac du Bonnet, Man., Norway House, Man., Cormorant Lake, Man.; Ladder Lake (Big River), Sask.; Ottawa, Ont.; Dartmouth, N.S.

The central stores and workshops for the Civil Division are administered as a part of this Branch. These are located at Victoria island, Ottawa.

Control of Civil Aviation.—The duties of this Branch include the licensing and registration of aircraft, airharbours, commercial and private air pilots, air engineers and air navigators. In addition to these duties, the location and construction of air routes and matters connected with airship services are administered in this Branch.

Civil aviation in the Dominion has had its chief development in connection with the exploration and conservation of the natural resources of the various provinces including forest protection, aerial photography and the transport of men and supplies to remote points and mining districts. Eleven regular air mail routes are now in operation.

On Dec. 31, 1928, there were in force certificates and licenses as follows:—private air pilots, 148; commercial air pilots, 250; air engineers, 200; registration of aircraft, 264; airharbour licenses, 44. (See also "Air Navigation", pp. 677-680, in the chapter on Transportation and Communications.)

Aeronautical Engineering.—This Branch undertakes the technical duties for both Military and Civil Divisions. The Chief Aeronautical Engineer acts as Consulting Engineer to the Department of National Defence, and is responsible for all questions of design, airworthiness of aircraft, equipment, works and buildings, and other similar technical duties.

Subsection 4.—The Royal Military College.

The Royal Military College of Canada was founded in 1876 by the Honourable Alexander Mackenzie, Prime Minister of Canada. Since its foundation 2,071 gentlemen cadets have been enrolled, and of this number 196 are now in attendance.

The Royal Military College has a very distinguished record in connection with the war. Of the 914 graduates and ex-cadets who served, 353 were granted commissions direct from the College, and 43 enlisted with a view to obtaining commissions; 156 ex-cadets were reported as killed in action, died of wounds, or missing. Ex-cadets of the College won the following honours and decorations:—1 Victoria Cross and 3 recommendations for the Victoria Cross, 106 Distinguished Service Orders, 109 Military Crosses, 2 Distinguished Flying Crosses, 62 other British decorations, 42 foreign decorations. Three Canadian and one Australian divisions were commanded by graduates of the College.

Ex-cadets who have served in the Army, either in the regular forces or during the Great War, include 1 general, 5 lieutenant-generals, 17 major-generals, and 26 brigadier-generals.

The establishment of the College, as stated in the Act of 1874 (37 Vict., c. 36), was "for the purpose of imparting a complete education in all branches of military tactics, fortifications, engineering and general scientific knowledge in the subjects connected with and necessary to a thorough knowledge of the military profession, and for qualifying officers for command and staff appointments". In addition to the foregoing, the course of instruction is such as to afford a thorough practical and scientific training in civil engineering, surveying, physics and chemistry, English and French. Strict discipline, combined with physical training, riding, drill and outdoor games, forms part of the curriculum.

The College is situated on a beautiful peninsula, one mile from Kingston, with the Cataraqui river on the one side, emptying into the St. Lawrence river at its junction with lake Ontario, and Navy bay on the other. The grounds include about 500 acres. The buildings of the College proper are situated on the above-

mentioned peninsula, comprising 60 acres. The remainder of the grounds, on which stands the historic Fort Henry, is at the disposal of the College for use as a training area. On the point of the College peninsula is situated Fort Frederick, built in 1837 when Kingston became the capital of Canada, the fort comprising a portion of the defences of Kingston. The College is under the supervision of the Department of National Defence, and is inspected annually by an advisory board composed of leading Canadian citizens, both civil and military, which makes its reports and recommendations to the Minister of National Defence. The staff is composed of a commandant and a staff-adjutant, assisted by a competent staff of civil and military professors and instructors.

A four years' course leads to a "diploma with honours" or "diploma" or a "certificate of military qualification". A number of commissions in the Canadian Permanent Force and the Royal Canadian Air Force, as well as commissions in the British Regular Forces, the Indian Army, and the Royal Air Force, are offered annually to graduates. In addition, one inspector's commission in the Royal Canadian Mounted Police is open each year to a graduate. To those graduates joining the British Army, the privilege of one year's seniority is granted in the British or Indian Armies. This has been arranged in order to equalize the seniority of graduates of the Royal Military College of Canada with those of Woolwich or Sandhurst, since the course at the latter institutions is shorter than the Canadian. Positions in the Public Works Department, hydrographic survey, etc., may also be obtained by graduates. Several Canadian universities admit graduates to the third years of arts and science courses.

The principal Canadian universities admit recommended graduates to the fourth year of their civil engineering courses and to the third year of other engineering courses, including chemical engineering. The R.M.C. diploma is also accepted by the Law Societies and Bar Associations of Ontario, Quebec, Manitoba, Saskatchewan, British Columbia and Alberta, as the equivalent of a B.A. degree for admission to the study of law. The Institute of Chartered Accountants of America, and the Association of Accountants of Quebec, likewise accept R.M.C. graduates as registered students under the same conditions as university graduates.

Entrance to the College is on a competitive basis. Candidates are required to pass a rigid medical examination, and to have obtained junior matriculation or its equivalent in the province where they have been educated.

Applications for admission to the College should reach The Secretary, Dept. of National Defence, Ottawa, before May 31 of each year.

Section 3.—Public Works.

Since Confederation and before, the Department of Public Works has been known as the constructing Department. In 1879 the railways and canals were placed under control of a new department, the building and maintenance of penitentiaries were transferred to the Department of Justice, the maintenance and construction of lighthouses to the Marine and Fisheries Department, and the smaller drill halls and armouries to the Department of Militia and Defence. The work of the Department of Public Works is now divided into three principal branches, *viz.*, the Engineering Branch, the Architect's Branch and the Telegraph Branch.

Engineering.—The Engineering Branch conducts the construction and repair of wharves, piers, breakwaters, dams, weirs, bank and beach protection works, the improvement of harbours and rivers by dredging, the construction, maintenance and operation of government dredging plant, the construction and maintenance of

graving docks, the construction and maintenance of interprovincial bridges and approaches thereto, and of bridges on highways of national importance in the North-west Territories, the maintenance of military roads, also hydrographic and ordinary surveys and examinations, inclusive of some precise levelling and geodetic measurements which are required for the preparation of plans, reports, and estimates, river gaugings and metering, the testing of cements and materials of construction, the licensing of international and interprovincial ferries, and the control of works constructed in or over navigable waters by authority of the Navigable Waters Protection Act.

Architecture.—The Architect's Branch constructs and maintains Government buildings, post offices, customs houses, examining warehouses, and constructs quarantine, immigration and experimental farm buildings, armouries, military hospitals and drill halls, and telegraph offices.

Telegraphs.—The Telegraph Branch has control over the construction, repairs and maintenance of all Government-owned telegraph lines and cables. These lines are located in the provinces of Nova Scotia, New Brunswick, Quebec, Ontario, Saskatchewan, Alberta, British Columbia and the Yukon. (See also pp. 704-705.)

Graving Docks.—There are 5 graving or dry docks built and owned by the Canadian Government. The dimensions of these docks are shown in Table **10.** The dock at Kingston, Ontario, is under lease to the Kingston Shipbuilding Company. The dock at Lauzon, Quebec, east of the old dock, is 1,150 feet long, divided into two parts (650 and 500 feet respectively), and 120 feet wide with depth at high water of 40 feet. It cost about $3,850,000. Under the Dry Dock Subsidies Act, 1910 (9-10 Edw. VII, c. 17), several docks have been subsidized by payments of 3 or 3½ p.c. per annum on the original cost for a given number of years, as shown in Table **11.**

10.—Dimensions of Graving Docks owned by the Dominion Government.

Locations.	Length.	Width at			Depth of water on sill.	Rise of tide.	
		Coping.	Bottom.	Entrance.		Spring.	Neap.
	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.
Lauzon, Que. "Champlain"	1,150	144	105	120	40·0 H.W.	18	13·3
Lauzon, Que. "Lorne"	600·3	100	59·5	62	25·8 H.W.	18	13·3
Esquimalt, B.C. (Old Dock)	450·7	90	41	65	29·0 H.W.	7 to 10	3 to 8
Esquimalt, B.C.	1,150	149	126	135	40·0 H.W.	7 to 10	3 to 8
Kingston, Ont.	308·6	79	47	55	16·0	–	–

11.—Dimensions and Cost of Graving Docks subsidized under the Dry Dock Subsidies Act, 1910.

Locations.	Length.	Width.	Depth over sill.	Total cost.	Subsidy.
	Feet.	Feet.	Feet.	$	
Collingwood No. 1, Ont.	515·8	59·8	14·8	500,000	3 p.c. for 20 years.
Collingwood No. 2, Ont.	413·2	95	19·2	306,965	3 p.c. for 20 years.
Port Arthur, Ont.	708·3	77·6	16·2	1,258,050	3 p.c. for 20 years.
Montreal, Que., Floating Dock, "Duke of Connaught"	601	100	31·5	3,000,000	3½ p.c. for 35 years.
Prince Rupert, B.C. (Floating Dock)	600	100	32	2,199,168	3½ p.c. for 35 years.
Saint John, N.B.	1,150	133	40	5,500,000	4½ p.c. for 35 years.
North Vancouver, B.C. (Floating Dock)	556·5	98	28	2,500,000	4½ p.c. for 35 years.

Expenditure and Revenue.—Table 12 shows the expenditure and revenue of the Public Works Department of the Dominion Government for the fiscal years 1923-28. For the fiscal year 1928 the expenditure was $16,596,414, as compared with $13,750,953 in 1927, an increase of $2,845,461, largely accounted for by appropriations for harbours and rivers, dredging and public buildings.

12.—Expenditure and Revenue of the Public Works Department for the fiscal years ended 1923-1928.

EXPENDITURE (exclusive of Civil Government Appropriations).

Items.	1923.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$	$
Harbour and river works....	5,042,747	5,772,800	6,529,466	6,296,293	3,835,914	4,198,905
Dredging plant, etc.....	1,380,902	2,004,433	2,043,635	2,350,225	1,918,798	2,879,559
Roads and bridges.....	84,367	43,234	59,997	304,074	9,717	38,629
Airports.....	–	–	–	–	–	84,251
Public buildings.....	6,221,186	7,223,545	8,507,795	7,778,324	6,984,720	8,252,449
Telegraphs.....	959,889	940,677	905,519	856,144	802,495	840,451
Miscellaneous.....	593,988	606,407	593,482	245,061	199,309	302,170
Total.....	**14,283,079**	**16,591,099**	**18,639,894**	**17,830,121**	**13,750,953**	**16,596,414**

REVENUE.

Items.	1923.	1924.	1925.	1926.	1927.	1928.
	$	$	$	$	$	$
Graving docks.....	105,337	117,562	92,831	85,382	120,402	87,322
Rents.....	139,118	102,808	122,588	130,594	96,315	101,571
Telegraphs.....	286,037	284,328	294,735	294,181	309,488	298,663
Casual revenue.....	251,696	174,100	80,895	154,535	108,605	98,435
Ferries.....	2,343	709	1,860	4,543	1,048	1,361
Total.....	**784,531**	**679,509**	**592,909**	**669,235**	**635,858**	**587,352**

Section 4.—The Indians of Canada.[1]

The Indians of Canada who are wards of the Department of Indian Affairs number about 105,000, their numbers varying but slightly from year to year. A small yearly increase is evident, however, and the popular notion that the race is disappearing is not in accordance with facts. Before they were subjected to the degenerating effects of European civilization and the devastating results of the many colonial wars, the numbers of both the Indians and Eskimos were undoubtedly larger, but any reliable information as to the aboriginal population during either the French or the early British *régime* is non-existent, and there is no adequate basis for a comparison between the past and present aboriginal populations. An interesting sketch of the progress of the Indians of Canada since Confederation will be found in the Report of the Department of Indian Affairs, 1927.

Administration.—Indians are minors under the law, and their affairs are administered by the Department of Indian Affairs under the authority of the Indian Act. This Department is the oldest governmental organization in the Dominion, dating back to the time of the conquest. It was originally under the military authorities, and did not become a part of the civil administrative machinery until 1845. By section 5 of the British North America Act, 1867, the Indians of Canada

[1]The letter-press under this heading is taken in the main from the article contributed by the Department of Indian Affairs to the 1921 edition. Paragraphs on the linguistic stock and tribal origin of the Indian population, their industries and occupations, their health, sanitation and dwellings, appearing on pp. 786-789 of the 1921 edition, are not reprinted.

and the lands reserved for them came under the control of the Dominion Government, and in 1873 an Act of the Canadian Parliament (R.S.C., c. 81) provided that the Minister of the Interior should be Superintendent-General of Indian Affairs and as such have the control and management of the lands and property of the Indians in Canada. The aim of the Department of Indian Affairs is the advancement of the Indians in the arts of civilization, and agents have been appointed to encourage the Indians under their charge to settle on the reserves and to engage in industrial pursuits.

The system of reserves, whereby particular areas of land have been set apart solely for the use of Indians, has been established in Canada from the earliest times. It was designed in order to protect the Indians from encroachment, and to provide a sort of sanctuary where they could develop unmolested until advancing civilization had made possible their absorption into the general body of the citizens.

Reserves have been set aside for the various bands of Indians throughout the Dominion, and the Indians located thereon are under the supervision of the local agents of the Department. The activities of the Department, as guardian of the Indians, include the control of Indian education, health, etc., the development of agriculture and other pursuits among them, the administration of their funds and legal transactions and the general supervision of their welfare.

The local administration of the Indian bands on the reserves scattered throughout the Dominion is conducted through the Department's agencies, of which there are in all 110. The number of bands included in an agency varies from one to more than 30. The staff of an agency usually includes various officers in addition to the agent, such as medical officer, clerk, farm instructor, field matron, constable, stockman, etc., according to the special requirements of the agency in question. The work of the agencies is supervised by the Department's inspectors, each inspector having charge of a certain number of agencies. Expenditures upon destitute Indians are made by the Dominion Government, either from public funds or from the tribal funds of the Indians themselves.

The Indian Act provides for the enfranchisement of Indians. When an Indian is enfranchised he ceases to be an Indian under the law, and acquires the full status of citizenship. In the older provinces, where the Indians have been longer in contact with civilization, many are becoming enfranchised. Great discretion, however, is exercised by the Government in dealing with this problem, as Indians who become enfranchised lose the special protection attached to their wardship, so that it is necessary to guard against premature enfranchisement.

Treaties.—In the older eastern provinces, the history of the Indians has been one of slow development with that of the community. In western Ontario and the Prairie Provinces, the situation has been different. There the rapid spread of civilization made it necessary to take prompt and effective measures to protect the moral claims of the Indians, which are recognized by the Government. Accordingly, treaties were entered into with the Indians, whereby the latter ceded to the Crown their aboriginal title and interest in the country. In consideration of such cession, the Crown agreed to set aside adequate reserves, make cash grants, provide per capita annuities, give assistance in agriculture, stock-raising, hunting, trapping, etc., as particular circumstances might require, provide education for the Indian children, and otherwise safeguard the Indians' interest. These treaties have been made from time to time as occasion arose and as new territories were opened up. No treaty has been made with the Indians of British Columbia, but their welfare has received no less attention from the Government on that account.

Government Expenditure.—On Mar. 31, 1928, the capital of the Indian Trust Fund, which a year earlier had amounted to $12,860,954, had increased to $14,465,496. The amounts expended from the Consolidated Revenue Fund were as follows:—voted by Parliament for the purposes of the Department, $3,977,791; annuities by statute, $220,209.

Statistics.—Statistical tables of population, school attendance, income and agricultural activities of the Indians in Canada are appended. The figures in Table 13 are compiled from reports of the various censuses since Confederation, while the remaining tables contain data from the latest annual report of the Department of Indian Affairs.

13.—Indian Population of Canada, 1871-1921.

Provinces.	1871.[1]	1881[1].	1891[2].	1901.	1911.	1921.
Prince Edward Island	323	281	314	258	248	235
Nova Scotia	1,666	2,125	2,076	1,629	1,915	2,048
New Brunswick	1,403	1,401	1,521	1,465	1,541	1,331
Quebec	6,988	7,515	13,361	10,142	9,993	11,566
Ontario	12,978	15,325	17,915	24,674	23,044	26,436
British Columbia	23,000	25,661	34,202	28,949	20,134	22,377
Manitoba				16,277	7,876	13,869
Saskatchewan					11,718	12,914
Alberta	56,000	56,239	51,249	23,604	11,630	14,557
Yukon Territory				3,322	1,489	1,390
Northwest Territories				14,921	15,904	3,873[4]
Total	**102,358**	**108,547**	**120,638**	**127,941**[3]	**105,492**	**110,596**

[1]Census figures in the organized provinces and estimates for the rest of Canada.
[2]Racial origin not taken in 1891; the figures have been taken from the report of the Department of Indian Affairs of that year.
[3]Includes 34,481 "half breeds".
[4]The smaller Indian population of the Northwest Territories in 1921 is to be ascribed to the extension of the boundaries of Quebec, Ontario and Manitoba in 1912, which also accounts for the increase in their 1921 Indian populations.

Indian Education.—The educational work of the Department is now very extensive. In the fiscal year ended Mar. 31, 1928, a total of 328 Indian schools were in operation, including 77 residential schools for Indians, with an enrolment of 6,795, and 251 day schools for Indians, with an enrolment of 8,036 Indian pupils, also 12 combined public and Indian schools, with 187 Indian pupils enrolled. The total enrolment in the Indian schools has increased from 12,799 in 1915-16 to 15,018 in 1926-27 and the average attendance from 8,080 to 10,866, or from 63·1 p.c. to 72·3 p.c. of the enrolment. Continuation and high school work is now being taught in several of the day and residential schools. The amount spent on Indian education in the fiscal year ended Mar. 31, 1928, was $2,033,375.

14.—Enrolment and Average Attendance of Pupils at Indian Schools, fiscal years ended Mar. 31, 1916-28.

Fiscal Year ended March 31.	Residential Schools.		Day Schools.		Total.		Percentage of attendance.
	Enrolment.	Average attendance.	Enrolment.	Average attendance.	Enrolment.	Average attendance.	
1916	4,661	4,029	8,138	4,051	12,799	8,080	63·13
1917	4,520	4,149	7,658	4,136	12,178	8,285	68·03
1918	4,692	4,081	7,721	3,797	12,413	7,878	63·46
1919	4,640	4,014	7,312	3,587	11,952	7,601	63·59
1920	4,719	4,133	7,477	3,516	12,196	7,649	62·71
1921	4,783	4,143	7,775	3,931	12,558	8,074	64·29
1922	5,031	4,360	7,990	4,308	13,021	8,668	66·56
1923	5,347	4,695	8,376	4,411	13,723	9,106	66·35
1924	5,673	4,856	8,199	4,332	13,872	9,188	66·23
1925	6,031	5,278	8,191	4,601	14,222	9,879	69·46
1926	6,327	5,658	8,455	4,940	14,782	10,598	71·69
1927	6,641	5,881	8,069	4,660	14,710	10,541	71·66
1928	6,795	6,043	8,036	4,697	15,018	10,866	72·35

Economic Advancement of the Indians in the Past Decade.—The Indians of Canada have made steady if rather slow progress in economic status during the past decade. When the fact is kept in mind that the Indians, unlike the whites, are not increasing rapidly in numbers, the significance of the figures which follow will be better appreciated. The area of the land under cultivation by Indians was 227,988 acres in 1928, as compared with 173,198 acres in 1916. Their live stock in 1927 included 42,022 horses and 52,688 cattle, as compared with 35,315 horses and 37,188 cattle in 1916. The total income of the Indians was $9,721,716 in 1928, as compared with $6,241,497 in 1916. If the Department's annual estimate of the number of Indians is used, the per capita figure of income is $93 in 1927 as compared with $59 in 1916. Information showing the acreage and value of Indian lands in 1928, the crops raised in 1927, the live stock owned by Indians in 1927, the sources and values of the income of Indians in 1927, is given by provinces in Tables **15** to **18.**

15.—Acreage and Value of Indian Lands, by Provinces, 1928.

Provinces.	Total acreage of reserves.	Land cleared but not under cultivation.	Land under cultivation.	Value of Lands.
	acres.	acres.	acres.	$
Prince Edward Island	1,668	347	595	20,000
Nova Scotia	21,289	4,379	911	98,275
New Brunswick	34,507	1,064	381	70,958
Quebec	177,420	17,752	11,045	1,404,045
Ontario	1,017,014	78,429	61,227	4,989,147
Manitoba	463,901	118,703	14,082	2,981,114
Saskatchewan	1,332,742	766,470	45,037	14,266,399
Alberta	1,278,858	860,295	69,515	18,514,425
British Columbia	740,811	256,575	25,191	13,981,828
Yukon	2,211	–	4	2,200
Total	**5,070,421**	**2,108,014**	**227,988**	**56,328,391**

16.—Area and Yield of Principal Field Crops of Indians, by Provinces, 1927.

Provinces.	Wheat.		Oats.		Other Grain.	
	acres.	bush.	acres.	bush.	acres.	bush.
Prince Edward Island	12	144	38	750	–	–
Nova Scotia	1	19	56	1,185	4	35
New Brunswick	7	77	109	1,485	15	177
Quebec	247	3,277	2,245	31,558	572	5,931
Ontario	2,328	37,270	13,071	300,982	4,199	88,887
Manitoba	1,607	19,548	2,217	18,862	2,792	44,919
Saskatchewan	15,847	283,021	11,309	215,213	1,529	31,695
Alberta	19,880	322,418	7,597	160,770	870	22,284
British Columbia	1,835	36,010	2,975	78,446	235	4,580
Total	**41,764**	**701,784**	**40,617**	**809,251**	**10,216**	**198,508**

Provinces.	Peas, Beans, etc.		Potatoes.		Other Roots.		Hay and Fodder.
	acres.	bush.	acres.	bush.	acres.	bush.	tons.
Prince Edward Island	–	–	15	550	–	–	105
Nova Scotia	14	171	102	4,045	28	540	554
New Brunswick	6	76	67	3,420	14	1,438	154
Quebec	158	2,271	1,113	25,263	72	2,827	4,811
Ontario	693	11,629	2,438	89,846	1,225	34,646	34,106
Manitoba	82	3,049	283	25,281	36	2,328	19,899
Saskatchewan	1	25	164	16,888	67	2,350	29,738
Alberta	–	–	171	12,087	54	1,370	27,771
British Columbia	469	10,148	2,380	154,350	479	39,073	25,143
Yukon and N.W.T.	–	–	1	110	–	50	10
Total	**1,423**	**27,369**	**6,716**	**331,840**	**1,975**	**84,622**	**142,201**

17.—Numbers of Farm Live Stock of Indians, with Total Values, by Provinces, 1927.

Provinces.	Horses.	Cattle.	Poultry.	Value of Live Stock and Poultry
	No.	No.	No.	$
Prince Edward Island	17	28	130	2,100
Nova Scotia	53	240	539	12,520
New Brunswick	39	64	453	6,540
Quebec	877	4,417	14,300	155,210
Ontario	4,025	13,654	72,209	655,773
Manitoba	2,154	3,700	5,151	260,500
Saskatchewan	6,232	7,492	10,699	639,285
Alberta	16,364	8,802	5,495	766,374
British Columbia	12,260	14,288	32,041	851,292
Yukon and N.W.T.	1	3	1,885	–
Total	**42,022**	**52,688**	**142,902**	**3,349,603**

18.—Sources and Values of Income of Indians, 1927.

Provinces.	Value of			Received from land rentals.	Earned by			Total Income of Indians.[1]
	Farm products, including hay.	Beef sold or used for food.	Wages earned.		Fishing.	Hunting and Trapping.	Other Industries.	
	$	$	$	$	$	$	$	$
Prince Edward Island	2,050	320	875	–	1,120	250	4,800	9,415
Nova Scotia	13,339	2,525	50,570	120	4,555	8,240	31,345	112,248
New Brunswick	10,190	385	35,700	75	5,850	3,465	5,975	64,130
Quebec	87,041	11,357	408,210	10,201	6,297	266,295	132,475	947,953
Ontario	679,485	42,760	866,370	28,886	218,340	313,580	296,920	2,825,881
Manitoba	185,135	17,357	153,900	1,385	83,070	297,835	47,950	863,208
Saskatchewan	661,299	69,363	141,777	6,898	21,924	144,100	67,217	1,256,138
Alberta	509,389	101,924	117,056	68,440	17,295	104,838	56,525	1,145,738
British Columbia	462,741	82,120	653,722	20,536	452,373	330,409	229,636	2,312,055
Total	**2,610,669**	**328,111**	**2,428,180**	**136,541**	**836,176**[2]	**1,628,612**[3]	**872,843**	**9,721,716**[4]

[1]Includes income received from timber and annuities earned as interest on Indian trust funds.
[2]Includes $25,350 in N.W.T. [3]Includes $159,600 in N.W.T. [4]Includes $184,950 in N.W.T.

Eskimos.—Under an amendment to the Indian Act passed in 1924 (14-15 Geo. V, c. 47) the Eskimos of Canada have been brought under the Department of Indian Affairs. These people, according to the best available information, number over 6,000, widely scattered across the northern part of Canada, in the Mackenzie delta, along the shores of the Arctic ocean, in Baffin land, and on both sides of Hudson bay. A review of the condition of the Eskimos of Canada will be found in the Report of the Department of Indian Affairs for the year ended Mar. 31, 1926.

Section 5.—Department of Pensions and National Health—Board of Pension Commissioners for Canada—Federal Appeal Board.

During the fiscal year ended Mar. 31, 1928, the Departments of Soldiers' Civil Re-establishment and Health have been merged as one Department under the title "Pensions and National Health". (The activities of the Department in connection with health are dealt with in Chapter XXIV.) The Board of Pension Commissioners for Canada and the Federal Appeal Board are attached to the Department.

The Board of Pension Commissioners is responsible for the adjudication and award of pensions in respect of disabilities connected with military service. The

Federal Appeal Board is authorized to hear appeals against decisions of the Department or the Commission in respect to ineligibility for treatment or pension on the ground that the disability in respect of which pension is refused is not attributable to or was not incurred during military service.

The work of the Pensions division of the Department of Pensions and National Health covers a great many distinct operations, the most important of which are the maintenance of a medical service, which includes the operation of hospitals, treatment of patients in contract hospitals, the operation of medical out-patient departments; the employment of a specialist staff, tubercular, neuropsychiatric and surgical; the aftercare of the tuberculous, and dental treatment. The Department is operating eight hospitals and the patient strength in these institutions on Mar. 31, 1928, was 1,764. In addition, 1,466 were undergoing treatment in other institutions under the supervision of the Department. The number of patients who received in-patient treatment during the fiscal year was 11,030, and out-patient treatment was given in 102,580 cases.

The Department operates a central factory and nine fitting depots in connection with the manufacture of artificial limbs and other prosthetic appliances. The number of appliances, including repairs, issued during the fiscal year was 44,213.

Sheltered employment workshops are operated at Toronto, Hamilton, Montreal, Halifax, Winnipeg and Vancouver and are known as Vetcraft Shops. In connection with the sale of products from these shops, a sales force is maintained. The Department manufactures the poppies and wreaths sold on Armistice Day.

Vocational training is still carried on to a limited extent, and in certain centres the Department maintains an employment service, while in others it co-operates with the Dominion-Provincial Service, particularly in the placement of handicapped men. A measure of relief is continued to pensioners who are out of employment.

Among the other activities of the Department may be mentioned the provision of veterans' care for indigent ex-members of the forces; general supervision of the activities of the Last Post Fund; payment of workmen's compensation in respect of pensioners of 25 p.c. and upwards; payment of compensation allowances to ex-members of the forces undergoing hospital treatment; co-operation with the trustees appointed under the Canteen Funds Act; aftercare of the blind, in co-operation with the Canadian National Institute for the Blind; and, by arrangement with similar departments in other countries and Dominions, the care of ex-members of the forces of those countries when in Canada. For the benefit of former Canadians who are now resident in the United Kingdom, an office is maintained in London, England.

The following is an epitomized statement of the manner in which the funds appropriated by Parliament were dealt with by the Department during the fiscal year:—

Direct payments to men and dependants		$ 43,131,385.83
Payments for services to men and dependants		3,813,812.29
Capital expenditures		31,686.26
Stores purchased		436,371.16
Payments to outside organizations		94,249.67
Recoverable expenditures		528,282.16
Insurance premiums revenue	$ 1,385,775.70	
Casual revenue	207,289.67	
		1,593,065.37
		49,628,852.74
Administration expense		1,458,816.30
		51,087,669.04
Expense of the Federal Appeal Board and the Board of Pension Commissioners		266,484.69
		$ 51,354,153.73

DEPARTMENTAL ADMINISTRATION EXPENSE.

Treatment, Pensions and Returned Soldiers' Insurance		$ 1,458,816.30
Percentage—Departmental Administration		p.c. 2·855
ADJUDICATION OF PENSIONS.		
Board of Pension Commissioners	$ 100,834.47	
Federal Appeal Board	165,650.22	
		266,484.69
Percentage—Adjudication of Pensions		p.c. 0·518
Total Administration and Adjudication Expenses		$ 1,725,300.99
Percentage of Administration and Adjudication Expense to All Expense		p.c. 3·359

Returned Soldiers' Insurance.—The Returned Soldiers' Insurance Act of 1920 was placed under the jurisdiction of the Board of Pension Commissioners for Canada. The Board confines itself, however, to supervision and adjudication on claims. All collections and payments are made by the Department. No applications under the Statute could be received after Sept. 1, 1923, but by c. 45 of the Statutes of 1928 the matter was re-opened, so that applications may be received until Aug. 31, 1929.

The total number of policies in force on Mar. 31, 1928, was 25,010, representing an insurance of $54,892,529. During the fiscal year the premium income was $1,386,350. Interest was $212,247, making a total of $1,598,597. Expenditure during the year in respect of death claims, cancelled insurance and surrendered policies, amounted to $724,391. The total number of death claims to Mar. 31, 1928, was 1,740, amounting to $4,921,140. The balance on hand as at Mar. 31, 1928, was $5,964,247.

The Board of Pension Commissioners for Canada.—The Board of Pension Commissioners consists of three members and operates under the authority of the Pension Act. This Act was amended in certain directions during the fiscal year ended Mar. 31, 1928, the principal amendment covering the Federal Appeal Board. The only other amendment of importance was the raising of the limit of time during which application for pension might be made from seven years to nine years after retirement or discharge from the forces.[1]

The following statistics illustrate the growth of the activities of the Board of Pension Commissioners:—

PENSIONS IN FORCE AS AT MARCH 31, 1918-1928.

Years.	Dependants.		Disabilities.		Total.	
	No. of Pensions.	Liability.	No. of Pensions.	Liability.	No. of Pensions.	Liability.
		$		$		$
1918	10,488	4,168,602	15,335	3,105,126	25,823	7,273,728
1919	16,753	9,593,056	42,932	7,470,729	59,685	17,063,785
1920	17,823	10,841,170	69,203	14,335,118	87,026	25,176,288
1921	19,209	12,954,141	51,452	18,230,697	70,661	31,184,838
1922	19,606	12,687,237	45,133	17,991,535	64,739	30,678,772
1923	19,794	12,279,621	43,263	18,142,145	63,057	30,421,766
1924	19,971	12,037,843	43,300	18,787,206	63,271	30,825,049
1925	20,105	11,804,825	44,598	19,816,380	64,613	31,621,205
1926	20,005	11,608,530	46,385	21,456,941	66,390	33,065,471
1927	19,999	11,419,276	48,027	22,811,373	68,026	34,230,459
1928	19,975	11,209,351	50,635	24,374,502	70,610	35,583,853

The total amount paid for Great War pensions during the fiscal year, including retroactive awards, was $38,602,757.

[1]By subsequent legislation passed during the session of 1928, this time limit for application was entirely removed.

The following are the figures of disability and dependent pensions of beneficiaries under the Pension Act as at Mar. 31, 1928:—

Total number of disability pensions, temporary	32,033
Total number of disability pensions, permanent	18,602
Total	50,635
Total number of dependent pensioners—	
Widows	7,737
Others	12,238
Total	19,975

Number of persons in receipt of benefits under the Pension Act as at Mar. 31, 1928:—

Disability pensioners	50,635
Disability pensioners' wives	36,898
Disability pensioners' children	62,766
Disability pensioners' other relatives	1,203
Dependent pensioners	19,975
Dependent pensioners' children	8,588
Other relatives in addition to main dependant	1,657
	181,722

Scale of Pensions.—The scale of pensions paid to dependent and disability pensioners has been several times revised. Before the Great War the pension for total disability in the case of a private had been $150 per annum. Since 1920 the total disability pension in the case of a private has been $900, one-third of this being paid as a bonus during the five years from Sept. 1, 1921. This bonus was later incorporated into the ordinary pension under c. 49 of the Statutes of 1925, with the result that the permanent total disability pension for lieutenants and all ranks below is now $900 for an unmarried person, with an addition of $300 for wife, $180 for the first child, $144 for second child and $120 for each additional child. Rates of pensions for all ranks were published in tables on pp. 960-962 of the 1925 Year Book, to which the reader is referred.

Federal Appeal Board.—In accordance with the provisions of legislation passed in 1923, the Federal Appeal Board was appointed in August 1923 by the Governor in Council, on the recommendation of the Honourable the Minister of Justice.

The establishment of the Appeal Board was decided upon in order to afford to returned soldiers, requiring or claiming treatment or pension, an opportunity to appeal to an independent tribunal against a refusal of their claim by the Board of Pension Commissioners or the Department of Pensions and National Health.

The function of the Board and the more important parts of the legislation under which it was established are set out in the following section of the Pension Act, c. 62, 13-14 Geo. V, 1923:—

> "11. (1) Upon the evidence and record upon which the Board of Pension Commissioners gave their decision an appeal shall lie in respect of any refusal of pension by the Board of Pension Commissioners on the grounds that the disability resulting from injury or disease or the aggravation thereof resulting in death was not attributable to or was not incurred during military service".

The Board holds sessions in approximately fifty centres in the Dominion. The appellants are represented and assisted in the preparation and presentation of their claims by Official Soldiers' Advisers appointed by the Federal Government. Up to the end of March, 1929, a total of 16,065 appeals had been registered with the Board.

The Board also acts as agent for the Imperial Pensions Appeal Tribunal and has dealt with a total of 1,054 cases up to the end of March, 1929.

Section 6.—Land Settlement—The Soldier Settlement Board.

During 1928 the Board proceeded with the revaluation of soldier settlers' lands, as authorized by the Act of 1927 (c. 68). Slightly over 8,000 settlers applied for revaluation, and at the end of the year 6,968 appraisals had been made and 3,080 awards approved. These awards totalled $2,565,503, the reduction granted amounting to 22 p.c. It is expected that the work of revaluation will be completed during the summer of 1929. The revaluation legislation provides that the depreciation in value of the farm shall be the amount by which, through no neglect or mismanagement on the part of the settler, the price at which the Board agreed to sell the land and improvements to the settler exceeds the present value.

Loans granted to 24,708 settlers since the beginning of the scheme amounted to $110,755,948. There are 10,273 active soldiers on free grant lands, of whom 3,621 have been granted loans.

The amount of money loaned has been substantially reduced. Payments made to the treasury have totalled $39,119,783, of which $12,141,282 represents interest payments. During the calendar year 1928 payments received amounted to $4,943,489, of which $2,117,273 was interest.

Since re-establishment 1,266 settlers have repaid their whole indebtedness to the Board. A majority of those remaining on the land continue to meet their annual payments promptly. In the ten years there have been re-sales of Board's lands numbering 6,565, about 3,000 to civilian settlers, 2,500 to British families and the remainder to other soldier settlers.

Over 6,000,000 acres of land have been bought or homesteaded by soldier settlers, at an average cost of $10 an acre. Of this, it is estimated that 2,000,000 acres have been brought into cultivation by the efforts of the settlers, making a very substantial contribution to the wealth of the country.

Apart from the soldier settlement phase of the Board's activities, the Land Settlement Branch has been instrumental in establishing a number of migrants on farm lands under various agreements with the British Government. Under the "3,000 Family Scheme" 2,997 families had come forward at the end of last year, in all 16,804 individuals. These families brought with them about $1,000,000 of their own money. Of this number 1,937 families had been established on farms, having contracted to purchase the properties on which they were living during the probationary period of one or two years, the land costing $7,427,148. British money already advanced for the purchase of chattels was $2,597,797, and another $2,000,000 was available for the purpose. Already of the sum advanced the migrants have repaid $557,152, including $130,000 assisted passage money. Many of the settlers established under this scheme are making exceptional progress, although some of them had no agricultural experience in the Old Country.

In another family scheme to bring 500 families from the British Isles for establishment on the land in New Brunswick, the provincial government is a partner to the extent that it provides the money for the purchase of the land, while the British Government provides the money for equipment and the Land Settlement Branch undertakes the supervision. Last year 95 families of 627 individuals came

forward, and the agreement provides for the establishment of 100 families a year until the quota is completed.

The Land Settlement Branch placed 2,616 British married farm workers, single farm workers and young men trained in various training centres. Other British migrants, to the number of 5,460, brought out by various organizations were received for after-care. The Branch was also called upon to place newcomers to the number of 7,346 in farm work. These included single men, domestics and families of various nationalities. It was also called upon to investigate 1,335 cases for the admission of aliens, 1,344 for nominated household workers and 2,971 for nominated agricultural workers.

Section 7.—Department of the Secretary of State.

The Department of the Secretary of State was constituted in its present form in 1873, through the merging of the previously-existing offices of the Secretaries of State for Canada and for the Provinces. The Secretary of State is the official mouthpiece of the Governor-General, as well as the medium of communication between the Dominion and Provincial Governments, all correspondence between the Governments being conducted by him with the Lieutenant-Governors. He is also the custodian of the Great Seal of Canada and the Privy Seal, as well as the channel by which the general public may approach the Crown.

The Secretary of State is also the Registrar-General, registering all proclamations, commissions, charters, land patents and other instruments issued under the Great Seal. He is further charged with the administration of the Companies Act, the Canada Temperance Act, the Naturalization Act, the Board of Trade and Trade Unions Acts, the Ticket of Leave Act. The following information on these subjects has been secured in the course of administration.

Charters of Incorporation.—The number of companies incorporated under the Companies Act and amending Acts during the fiscal year 1927-28 was 1,102, with a total capitalization of $538,595,570. Supplementary letters patent were granted to 261 companies during the year, 82 of which increased their capital stock by the aggregate amount of $179,167,100; 31 decreased their capital stock by $37,123,580; the remaining 148 were granted supplementary letters patent for various purposes, such as changing names, extending powers, etc. The total capitalization of new companies plus the increase of capital of existing companies amounted to $717,762,670.

In Table **20** will be found the number and capitalization of companies incorporated during the years 1900-1928.

20.—Number and Capitalization of Companies incorporated under the Companies Act and amending Acts during the calendar years 1900-1907, and for the fiscal years ended Mar. 31, 1908-1928.

Years.	New Companies.		Old Companies.		Gross Increase in Capitalization.	Old Companies.		Net Increase of Capitalization.
	Number.	Capitalization.	Number.	Increase in Capital.		Number.	Decrease in Capital.	
		$		$	$		$	$
1900	53	9,558,900	–	3,351,000	12,909,900	–	–	12,909,900
1901	55	7,662,552	–	3,420,000	11,082,552	–	–	11,082,552
1902	126	51,182,850	–	5,055,000	56,237,850	–	–	56,237,850
1903	187	83,405,340	–	5,854,520	89,259,340	–	–	89,259,340
1904	206	80,597,752	–	3,366,000	83,963,752	–	–	83,963,752
1905	293	99,910,900	–	9,685,000	109,595,900	–	–	109,595,900
1906	374	180,173,075	–	32,403,000	212,576,075	–	–	212,576,075
1907	378	132,686,300	–	19,091,900	151,778,200	–	–	151,778,200
1908 (3 mos.)	64	13,299,000	–	865,000	14,164,000	–	–	14,164,000
1909	366	121,624,875	–	72,293,000	193,917,875	–	–	193,917,875
1910	420	301,788,300	44	46,589,500	348,377,800	4	670,600	347,707,200
1911	454	458,415,800	45	24,715,600	483,131,400	4	10,650,000	472,481,400
1912	575	447,626,999	44	42,939,000	490,565,999	7	17,880,800	472,685,199
1913	835	625,212,300	54	55,549,900	680,952,200	5	11,861,381	669,100,819
1914	647	361,708,567	61	63,599,003	425,307,570	3	3,290,000	422,017,570
1915	461	208,283,633	34	26,650,000	234,933,633	4	6,840,000	228,093,633
1916	534	157,342,800	28	68,996,000	226,338,800	11	4,811,700	221,527,100
1917	606	207,967,810	36	26,540,000	234,507,810	3	5,050,000	229,457,810
1918	574	335,982,400	41	69,321,400	405,303,800	4	1,884,300	403,419,500
1919	512	214,326,000	69	67,583,625	281,909,625	11	2,115,985	279,793,640
1920	991	603,210,850	88	85,187,750	688,398,600	10	19,530,000	668,868,600
1921	852	752,032,683	135	79,803,000	831,835,683	17	7,698,300	824,167,383
1922	875	351,555,900	43	18,275,000	369,830,900	13	5,121,450	364,709,450
1923	752	314,603,050	45	46,108,500	360,711,550	30	10,751,123	349,960,427
1924	604	204,646,283	58	15,352,755	219,999,038	27	57,944,410	262,054,628
1925	663	231,044,800	47	15,549,573	246,594,373	28	43,863,633	202,730,740
1926	801	353,342,800	48	33,303,500	386,646,300	47	43,797,780	342,848,520
1927	836	692,540,900	70	33,524,000	726,064,900	40	16,905,045	709,159,855
1928	1,102	538,595,570	82	179,167,100	717,762,670	31	37,123,580	680,639,050

Naturalizations.[1]—The naturalizations effected under the Naturalization Act (R.S. 1906, c. 77) for the calendar years 1908-1917 inclusive, were given on page 594 of the Year Book for 1919. Since Jan. 1, 1918, the only method of obtaining naturalization has been under what is known as the "Imperial" Naturalization Act, which came into force on Jan. 1, 1915. This Act was known under the title of the Naturalization Act, 1914, until July 7, 1919, when it was repealed and the Naturalization Act, 1919, came into force. On July 1, 1920, the Naturalization Act, 1919, was repealed, and the Naturalization Act, 1914, was revived and amended under the title of the Naturalization Acts, 1914 and 1920. By an amendment passed by Parliament in 1923, the restriction by which persons of alien enemy birth were ineligible to receive certificates of naturalization for a period of 10 years after the termination of the war was removed, and at the present time any alien may apply for naturalization, regardless of his nationality. All these Acts have been consolidated in R.S.C. 1927, c. 138.

Table **21** shows the number of naturalization certificates issued to single persons or heads of families under these Acts during the calendar years from 1918 to 1927. The total number of persons naturalized during the fiscal year ended Mar. 31, 1928, including the wives and minor children of those to whom naturalization certificates were issued, was 13,465.

[1] On the subject of naturalization, see also pp. 102-107 of this volume.

21.—Naturalizations in Canada, by Principal Nationalities, effected under the Naturalization Act during the calendar years 1919-1927.

Nationalities.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.
Albanians	–	1	3	4	5	3	12	4	8
Americans	37	3,553	2,521	1,600	989	888	927	1,070	963
Arabians	–	1	–	1	–	–	–	–	–
Argentinians	1	–	1	2	1	–	1	–	2
Austrians	–	15	182	89	606	1,108	1,021	1,195	925
Austrian (Bohemian)	–	–	–	–	–	–	–	1	–
Austro-Hungarians	–	3	25	5	10	15	9	4	7
Austrian (Serbian)	–	–	–	–	–	–	–	1	–
Austrians (Ukrainians)	–	–	–	2	–	1	–	–	–
Belgians	65	102	137	132	129	157	192	204	157
Bohemians	2	–	–	–	–	–	–	–	–
Bolivians	–	–	–	1	–	–	–	–	–
Brazilians	–	2	2	5	4	–	1	2	–
British in Canada	3	–	–	–	–	–	–	–	–
Bulgarians	–	3	5	3	32	74	76	58	59
Chilians	–	–	–	1	–	–	1	1	–
Chinese	21	20	25	14	10	60	50	32	29
Colombians	–	–	–	–	–	–	–	–	1
Czechoslovaks	1	102	145	99	64	115	60	47	38
Danes	115	133	171	125	93	79	108	105	116
Danzigers	–	–	–	–	–	–	–	–	1
Dutch	80	99	94	65	51	85	67	75	79
Dutch East Indians	–	–	–	–	–	–	–	–	–
Egyptians	–	–	–	2	1	2	–	2	1
Estonians	–	–	–	–	–	–	–	–	2
Finns	17	111	152	115	74	152	184	119	128
French	128	127	158	124	96	105	107	140	123
Germans	–	112	257	195	144	346	246	229	183
Germans (Alsace-Lorraine)	–	1	–	–	–	–	–	–	–
Greeks	30	161	224	260	268	384	292	167	161
Greeks (Albanian)	–	–	–	–	–	–	–	–	1
Greeks (Turk)	–	–	–	1	–	–	1	–	–
Hungarians	–	7	28	31	24	112	71	69	37
Icelanders	–	–	–	–	–	5	10	151	15
Italians	156	181	432	665	886	1,366	1,258	1,589	1,270
Italians (Greek)	–	–	–	–	–	–	–	1	–
Japanese	82	125	135	95	29	92	53	88	17
Jugo-Slavs	–	3	2	–	–	–	–	–	–
Latvians	–	–	–	–	–	–	–	–	17
Lithuanians	–	–	–	–	–	–	–	1	46
Luxemburgers	1	6	7	3	5	–	5	6	2
Mexicans	–	–	–	–	1	–	–	–	1
Montenegrins	1	4	4	–	1	1	2	2	2
Nationality undetermined	–	–	1	–	–	4	1	–	–
No Nationality	2	1	3	1	3	1	–	–	–
Norwegians	210	366	301	209	151	207	183	192	202
Palestinians	–	–	–	7	5	2	–	3	2
Persians	–	3	4	–	1	4	5	3	2
Persians (Armenian)	–	–	–	–	–	–	1	–	–
Poles	58	1,194	1,939	1,088	654	926	749	1,339	1,189
Poles (Russian)	–	–	3	–	–	–	–	–	–
Poles (Ukrainian)	–	7	287	302	12	–	–	–	–
Portuguese	1	–	1	1	–	1	1	1	1
Re-Admission	4	–	–	–	–	–	–	–	–
Rumanians	55	384	873	585	475	620	561	626	570
Russians	687	1,303	2,027	1,715	1,206	1,240	989	1,119	981
Serb-Croat-Slovenes	–	22	123	99	80	119	117	116	80
Serbians	3	24	4	3	–	–	–	–	–
Spaniards	4	5	3	8	5	10	8	12	5
Subjects of Allied Powers	–	28	77	120	188	–	–	–	–
Swedes	236	384	437	276	226	284	262	274	258
Swiss	39	51	69	49	43	42	48	31	9
Turks	–	2	10	7	8	22	25	10	17
Turks (Armenian)	1	39	67	86	79	69	35	35	22
Turks (Assyrian)	–	–	3	1	–	–	–	–	–
Turks (Bulgarian)	–	–	–	–	–	–	1	–	–
Turks (Greek)	–	3	15	7	7	2	12	11	4
Turks (Macedonian)	–	–	1	–	–	–	–	–	–
Turks (Mesopotamian)	–	4	2	5	2	–	1	–	–
Turks (Palestinian)	–	1	1	–	–	1	1	–	–
Turks (Syrian)	11	79	134	136	125	137	118	128	93

21.—Naturalizations in Canada, by Principal Nationalities, effected under the Naturalization Act during the calendar years 1919-1927—concluded.

Nationalities.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.
Venezuelans	–	–	–	–	1	–	–	–	–
Section 6[1]	–	2	3	–	2	2	1	3	2
Section 11, s.s. (c), c. 38, Nat. Act, 1919[2]	–	2	–	–	–	–	–	–	–
Total	**2,051**	**8,776**	**11,098**	**8,344**	**6,795**	**8,843**	**7,873**	**9,130**	**7,819**

[1]Under Section 6 of the Naturalization Act the Secretary of State is authorized in his discretion to grant a special certificate of naturalization to any person with regard to whose nationality as a British subject a doubt exists.

[2]Resumption of British nationality by wife of alien being a subject of state at war with His Majesty.

Canada Temperance Act.—Under parts 1 and 2 of this Act, provision is made for the prohibition of the sale of intoxicating liquors in countries and cities. Under these parts a vote was taken in the County of Brome, Quebec, on July 10, 1928, in response to a petition for the repeal of the Act in that county. The vote resulted in favour of the repeal, which became effective on Dec. 3, 1928. Part 3 of the Act relates to penalties and prosecutions, part 4 to the prohibition of the importation and exportation of intoxicating liquors into and from the provinces, while part 5 enacts provisions in aid of provincial legislation for the control of the liquor traffic. All the provinces except Quebec and British Columbia have carried plebiscites in favour of the prohibition of importation of liquors. Exportation is prohibited from the provinces of New Brunswick, Prince Edward Island, Manitoba, Alberta and Saskatchewan.

Section 8.—The Royal Canadian Mounted Police.

The Royal Canadian Mounted Police (formerly the Royal Northwest Mounted Police) are distributed throughout the Dominion, with headquarters at Ottawa. It is a Dominion constabulary, whose duties, owing to the fact that the provinces are responsible for the enforcement of law and order, are somewhat different from those of most police forces. In addition, however, to its strictly federal duties, by an arrangement approved by Order in Council on April 14, 1928, and coming into effect on June 1, 1928, the Force has assumed the enforcement of law and order in Saskatchewan, outside of urban centres which maintain their own municipal forces. The arrangement is substantially similar to that which obtained in the two provinces of Alberta and Saskatchewan from their establishment in 1905 until 1917. In return for the payment by the Government of Saskatchewan of an annual sum of $175,000, and the defraying of certain contingent expenses, the administration of justice is undertaken by the Royal Canadian Mounted Police, under the direction, in matters pertaining to this class of work, of the Attorney-General of the Province. The Saskatchewan Provincial Police was disbanded on June 1, 1928, a number of its officers and other ranks being absorbed into the Royal Canadian Mounted Police. This arrangement is for a term of seven years. As a result, there are now upwards of 80 detachments in the Province, with over 260 officers and other ranks.

The federal duties of the Force, as distinct from its provincial duties in Saskatchewan, fall under the following general headings:—(1) The enforcement of Dominion Statutes; (2) The enforcement of the Criminal Code in the Northwest Territories (including the Arctic), the Yukon, the national parks and Indian reserves, and also when Dominion Departments are the aggrieved parties; (3) the enforcement (by special agreement) of provincial laws, etc., in national parks in British Columbia

and Alberta; (4) investigations for other Departments; (5) Police assistance and protection rendered to federal Departments, provincial authorities, other police forces, etc. The fourth and fifth of these categories have increased greatly in recent years, from 8,500 cases in 1920 to 37,642 in 1928, and the assistance rendered is of the most varied kinds, including aid to the Customs in preventing smuggling, to Inland Revenue in suppressing illegal stills, to the Department of Health in combating the traffic in narcotic drugs, to the Secretary of State in verifying the statements made by applicants for naturalization, to the Post Office in detecting frauds upon and robberies of the mails, to the Department of Indian Affairs in protecting the Indians, etc. Aid is occasionally given to Provincial Governments in the maintenance of law and order.

The Arctic work is becoming increasingly important; there are now in the Arctic and sub-Arctic regions (exclusive of the Yukon) 31 detachments with 89 all ranks, or about 9 p.c. of the entire strength. These detachments include posts on Ellesmere, North Devon, Baffin and Victoria islands, as well as along the coasts of the Arctic ocean and Hudson bay; one (Bache peninsula) is within eleven degrees of the North Pole, and a powerful auxiliary power schooner, the St. Roch, employed in the Arctic ocean, ranks as a detachment; every winter long patrols are made in these regions, the islands west of Ellesmere island (Axel Heiberg, etc.), being visited periodically. Contrasted with this is detective work in the urban communities, in running to earth counterfeiters, narcotic drug dealers, robbers of the mails, and others of the more dangerous types of evil-doers.

On Sept. 30, 1928, the strength of the Force was 55 officers, 936 non-commissioned officers and constables, and 96 special constables, or 1,087 all ranks, with 228 horses and 372 dogs. Excluding special constables, the accessions to the force (including Saskatchewan Provincial Police taken over) numbered 246. The number of applicants was 2,257. The details of the strength, and the record of fluctuations of strength, are shown in Table 22.

22.—Strength and Distribution of the Royal Canadian Mounted Police on Sept. 30, 1928, with totals for 1920-28.

Schedule.	Headquarters Staff.	Maritime Provinces.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Yukon.	Northwest Territories.	Baffin Land.	Ellesmere Island.	North Devon Island.	On Loan.	Canada.
Commissioner	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Asst. Commissioners	1	–	–	–	–	1	–	–	–	–	–	–	–	–	2
Superintendents	2	–	–	2	1	2	2	1	1	–	–	–	–	–	11
Inspectors	2	1	1	6	2	7	6	7	2	4	–	–	1	–	39
Surgeon	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1
Veterinary Surgeon	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1
Staff Sergeants	5	2	–	5	2	6	6	3	4	1	–	–	–	–	34
Sergeants	12	3	3	22	8	30	19	8	2	3	2	–	–	–	112
Corporals	11	2	9	24	8	42	17	17	5	11	1	1	1	1	150
Constables	23	27	20	227	22	154	50	44	21	42	4	2	2	2	640
Special Constables	11	–	2	12	6	18	23	8	6	10	–	–	–	–	96
Total, Canada....1928	**68**	**35**	**35**	**298**	**49**	**262**	**123**	**88**	**41**	**71**	**7**	**3**	**4**	**3**[1]	**1,087**
" 1927	69	36	36	306	54	170	112	99	39	65	8	3	3	4	1,004
" 1926	66	28	37	276	47	173	113	93	34	56	7	3	3	27	963
" 1925	72	30	27	294	52	182	116	94	37	49	8	3	3	10	977
" 1924	72	32	27	295	51	192	128	109	40	52	7	2	3	10	1,020
" 1923	72	32	31	317	64	253	152	143	42	29	4	9	–	–	1,148
" 1922	79	37	41	288	71	274	173	175	51	27	4	7	–	–	1,227
" 1921	79	32	26	440	162	329	266	265	52	28	1	–	–	–	1,680
" 1920	72	25	9	384	160	400	300	257	48	16	–	–	–	–	1,671

[1]On loan to Marine and Fisheries Department, two constables; on loan to Canadian Legation, Washington, one corporal.

Section 9.—Judicial and Penitentiary Statistics.

The collection and publication of criminal statistics was first authorized by an Act of 1876 (39 Vict., c. 13), and the results have been published upon a comparable basis in an annual report from that time to the present, and are now collected and published by the Dominion Bureau of Statistics under the Statistics Act (8-9 Geo. V, c. 43), which provides for the receipt of an annual return by the Bureau from every court or tribunal administering criminal justice. The statistics as published show for each judicial district (155 in number) the offences that have been committed, analysed to indicate the nature of the offence, the age, sex, occupation and social condition, birthplace, etc., of the convicted, and the sentences imposed. The Act also provides for the collection of the statistics of penitentiaries, prisons, reformatories and gaols, as complementary to the preceding.

Subsection 1.—General Tables.

The statistics relate to years ended Sept. 30, the latest report being for 1927. Beginning with the report for 1922, an enlargement of the classification of offences has been adopted, by which offences of juvenile offenders are compiled separately from those of adults. The term "indictable" applies to offences of adults only, similar offences committed by juveniles being termed "major" offences; similarly, "non-indictable" offences of adults are termed "minor" offences when attributed to juveniles. All current tables have been worked out for 1922 and subsequent years in accordance with the new classification, but a comparative historical table, giving the totals for different classes of criminal offences and minor offences, including those of juvenile delinquents, is here published (Table **23**), together with a more detailed table for recent years (Table **24**). In the consideration of the former it should be remembered that while the criminal code undergoes little change over periods of time, the figures of summary convictions depend very much upon the changes in the customs of the people, and are apt to increase with the increasing urbanization of the population. The most significant column of Table **23** is the figure of criminal offences per 100,000 of population. Attention may be drawn to the increase in the proportion of both criminal offences and minor offences to population in the past year, convictions for criminal offences having risen from 277 per 100,000 population in 1924 to 304 per 100,000 population in 1927 and convictions for minor offences from 1,535 per 100,000 in 1924 to 2,009 per 100,000 in 1927.

It should be understood that the classification of offences in these general tables is irrespective of the more technical classification into "indictable" and "non-indictable" offences under the Criminal Code. The object here is to show a broad historical record of criminal and minor offences respectively.

23.—Convictions for Criminal Offences, by Groups, and Total Convictions for Minor Offences, years ended Sept. 30, 1876-1927, with Proportions to Population.

Years.	Criminal Offences.							Minor Offences.			Total Criminal and Minor Offences.
	Offences against			Other felonies and misdemeanours.	Total of Criminal Offences.						
	the person.	property with violence.	property without violence.								
	No.	No.	No.	No.	No.	p.c. of all offences.	Per 100,000 pop.	No.	p.c. of all offences.	Per 100,000 pop.	No.
1876...	4,959	201	2,870	121	8,151	28·9	206	20,064	71·1	508	28,215
1877...	5,253	229	3,316	114	8,912	29·4	222	21,388	70·6	533	30,300
1878...	5,376	222	3,612	129	9,339	28·3	229	23,666	71·7	580	33,005
1879...	4,815	238	3,043	75	8,168	28·4	197	20,568	71·6	496	28,736
1880...	5,694	176	3,018	202	9,090	32·2	215	19,119	67·8	454	28,209
1881...	4,353	144	2,593	288	7,378	25·2	170	21,847	74·8	504	29,225
1882...	4,637	173	2,845	106	7,791	24·9	178	23,514	75·1	536	31,305
1883...	4,838	132	2,587	128	7,715	22·9	174	25,857	77·1	583	33,572
1884...	4,288	228	3,547	167	8,230	27·6	183	21,563	72·4	481	29,793
1885...	5,057	222	3,157	289	8,725	25·6	192	25,317	74·4	558	34,042
1886...	5,202	255	2,943	224	8,624	25·2	188	25,581	74·8	557	34,205
1887...	4,902	208	2,519	224	7,873	22·7	170	26,772	77·3	577	34,645
1888...	4,790	225	3,442	162	8,619	22·8	184	29,173	77·2	622	37,792
1889...	5,284	283	3,453	164	9,187	23·8	194	29,421	76·2	621	38,608
1890...	5,093	276	3,267	164	8,800	22·7	184	29,906	77·3	624	38,706
1891...	4,788	283	3,369	160	8,600	22·9	178	29,017	77·1	599	37,617
1892...	4,973	251	3,232	173	8,559	24·3	175	26,734	75·7	547	35,293
1893...	4,689	332	3,574	181	8,806	24·7	178	26,847	75·3	544	35,653
1894...	4,599	450	4,155	200	9,404	26·0	189	26,761	74·0	537	36,165
1895...	4,652	462	4,199	295	9,608	25·6	191	27,977	74·4	556	37,585
1896...	4,544	408	4,104	301	9,357	25·1	184	27,921	74·9	549	37,278
1897...	4,418	475	4,431	409	9,733	25·6	189	28,245	74·4	550	37,978
1898...	4,534	540	4,594	335	10,033	26·3	193	28,143	73·7	514	38,206
1899...	4,227	444	4,541	339	9,551	24·7	181	29,159	75·3	554	38,710
1900...	4,593	413	4,571	411	9,993	24·0	188	31,661	76·0	595	41,654
1901...	4,698	451	4,441	384	9,974	23·7	184	32,174	76·3	596	42,148
1902...	4,773	413	4,541	333	10,090	23·1	182	33,446	76·9	605	43,536
1903...	5,480	513	4,944	535	11,472	22·8	202	38,911	77·2	686	50,383
1904...	5,919	552	5,295	528	12,294	22·4	211	42,652	77·6	732	54,946
1905...	5,694	656	5,711	812	12,873	20·6	215	49,686	79·4	829	62,559
1906...	6,215	645	6,425	1,078	14,363	20·3	233	56,540	79·7	916	70,903
1907...	6,651	681	6,937	807	15,046	19·0	239	64,124	81·0	1,017	79,170
1908...	7,379	893	7,973	1,069	17,314	19·5	266	71,320	80·5	1,099	88,634
1909...	6,536	848	7,771	1,332	16,537	18·4	247	73,415	81·6	1,096	89,952
1910...	7,793	943	8,191	1,131	18,058	17·5	268	84,845	82·5	1,227	102,903
1911...	8,352	977	9,024	1,194	19,547	17·3	273	93,713	82·7	1,309	113,260
1912...	9,371	1,195	10,626	1,540	22,732	15·5	309	123,795	84·5	1,686	146,527
1913...	11,444	1,472	12,721	1,724	27,361	15·8	363	145,777	84·2	1,936	173,138
1914...	12,136	1,810	14,645	1,952	30,543	16·7	397	152,492	83·3	1,982	183,035
1915...	10,664	2,234	14,269	1,525	28,692	18·7	373	124,363	81·3	1,619	153,055
1916...	9,327	1,478	11,018	1,459	23,282	18·8	289	100,509	81·2	1,251	123,791
1917...	6,852	1,321	9,886	1,271	19,330	16·9	236	94,681	83·1	1,157	114,011
1918...	7,292	2,049	10,743	1,390	21,474	17·4	258	101,795	82·6	1,222	123,269
1919...	7,731	2,606	11,508	1,656	23,501	18·1	277	106,518	81·9	1,256	130,019
1920...	8,281	2,310	11,634	2,059	24,284	14·9	281	138,424	85·1	1,604	162,708
1921...	8,197	2,609	12,059	2,081	24,946	14·2	284	152,227	85·9	1,731	177,173
1922...	7,291	2,783	11,607	2,610	24,291	15·3	271	134,049	84·7	1,498	158,340
1923...	7,550	2,076	11,482	3,075	24,183	15·1	266	135,069	84·8	1,487	159,252
1924...	7,595	2,536	12,790	2,635	25,556	15·3	277	141,663	84·7	1,535	167,219
1925...	7,826	2,749	13,892	2,644	27,111	15·3	289	150,672	84·7	1,610	177,783
1926...	7,799	2,296	14,262	2,679	27,036	13·8	287	169,171	86·2	1,803	196,207
1927...	8,343	2,671	15,154	2,809	28,977	13·1	304	191,285	86·9	2,009	220,262

24.—Convictions for Criminal and Minor Offences, by Classes of Offences, Numbers and Ratios, years ended Sept. 30, 1923-1927 (including Juveniles).

A.—NUMBERS.

Classes of Offences.	1923.	1924.	1925.	1926.	1927.
	No.	No.	No.	No.	No.
Offences against the person	7,550	7,595	7,826	7,799	8,343
Offences against property with violence	2,076	2,536	2,749	2,296	2,671
Offences against property without violence	11,482	12,790	13,892	14,262	15,154
Other felonies and misdemeanours	3,075	2,635	2,644	2,679	2,809
Total for criminal offences	24,183	25,556	27,111	27,036	28,977
Breach of Municipal Acts and By-laws	69,445	72,389	76,619	92,184	110,532
Breach of liquor laws	10,090	10,449	11,636	13,512	12,487
Drunkenness	25,565	27,345	26,754	28,324	31,177
Vagrancy	3,969	4,596	5,830	6,988	7,877
Loose, idle and disorderly	5,026	4,974	5,946	4,675	5,649
Keeping bawdy houses and inmates thereof	4,438	4,658	4,495	4,006	3,206
Miscellaneous minor offences	16,536	17,252	19,392	19,482	20,363
Total for minor offences	135,069	141,663	150,672	169,171	191,285
Grand Total	**159,252**	**167,219**	**177,783**	**196,207**	**220,262**

B.—RATIOS PER CENT OF TOTAL AND PER 100,000 OF POPULATION.

Classes of Offences.	1923.		1924.		1925.		1926.		1927.	
	Per cent.	Per 100,000 pop.	Per cent.	Per 100,000 pop.	Per cent.	Per 100,000 pop.	Per cent.	Per 100,000 pop.	Per cent.	Per 100,000 pop.
Offences against the person	4·7	83	4·5	82	4·4	84	3·9	83	3·8	88
Offences against property with violence	1·3	23	1·5	27	1·6	29	1·2	24	1·2	28
Offences against property without violence	7·2	126	7·7	139	7·8	148	7·3	151	6·9	159
Other felonies and misdemeanours	2·0	34	1·6	29	1·5	28	1·4	29	1·2	29
Total for criminal offences	15·2	266	15·3	277	15·3	289	13·8	287	13·1	304
Breach of Municipal Acts and By-laws	43·6	765	43·3	785	43·1	818	46·9	982	50·2	1,161
Breach of liquor laws	6·3	111	6·3	113	6·6	124	6·8	144	5·7	131
Drunkenness	16·0	281	16·4	296	15·0	286	14·4	302	14·2	327
Vagrancy	2·5	44	2·7	50	3·3	62	3·6	74	3·6	83
Loose, idle and disorderly	3·1	55	2·9	54	3·3	64	2·4	50	2·6	59
Keeping bawdy houses and inmates thereof	2·8	49	2·8	50	2·5	48	2·1	43	1·4	34
Miscellaneous minor offences	10·4	182	10·3	187	10·9	208	10·0	208	9·2	214
Total for minor offences	84·7	1,487	84·7	1,535	84·7	1,610	86·2	1,803	86·9	2,009
Grand Total	**100**	**1,753**	**100**	**1,812**	**100**	**1,899**	**100**	**2,090**	**100**	**2,313**

The recent trend of total convictions, including those of juveniles, and of sentences imposed, is shown by provinces for the years 1921 to 1927 in Table **25.** Death sentences, which numbered 28 in 1919 and 26 in 1920, fell to 15 in 1923, rose to 22 in 1924, and dropped to 18 in 1925, 15 in 1926 and 12 in 1927.

25.—Convictions and Sentences for all offences, by Provinces, years ended Sept. 30, 1921-1927.

Provinces.	1921.	1922.	1923.	1924.	1925.	1926.	1927.
	No.	No.	No.	No.	No.	No.	No.
Canada—							
Convictions	177,173	158,340	159,252	167,219	177,783	196,207	220,262
Sentences—							
Penitentiary	1,614	1,599	1,174	1,389	1,536	1,553	1,739
Gaol or fine	146,278	126,621	147,919	131,795	144,960	163,084	179,863
Reformatory	502	519	531	791	1,033	722	865
Death	17	19	15	22	18	15	12
Other sentences	28,762	29,582	9,613	33,222	30,236	30,833	37,783
Prince Edward Island—							
Convictions	397	341	344	257	256	365	427
Sentences—							
Penitentiary	3	4	1	4	1	4	4
Gaol or fine	383	327	328	243	202	324	405
Reformatory	1	1	–	–	6	–	3
Death	–	–	–	–	–	–	–
Other sentences	10	9	15	10	47	37	15
Nova Scotia –							
Convictions	5,572	4,279	3,762	3,950	3,830	4,629	5,308
Sentences—							
Penitentiary	137	165	99	67	119	131	78
Gaol or fine	4,708	3,511	3,258	3,444	2,953	3,776	4,553
Reformatory	42	33	82	3	98	94	70
Death	1	2	–	–	1	–	–
Other sentences	684	568	323	436	659	628	607
New Brunswick—							
Convictions	3,070	2,655	2,387	2,723	2,766	2,713	3,080
Sentences—							
Penitentiary	83	106	36	39	54	23	25
Gaol or fine	2,749	2,371	2,252	2,559	2,305	2,412	2,628
Reformatory	20	11	12	1	23	27	47
Death	–	1	–	–	2	–	–
Other sentences	218	166	87	124	382	251	380
Quebec—							
Convictions	49,106	35,605	31,710	25,532	30,150	28,952	34,093
Sentences—							
Penitentiary	274	312	252	290	395	398	394
Gaol or fine	42,777	28,807	29,645	21,911	24,469	23,986	28,193
Reformatory	110	134	91	5	223	124	215
Death	3	4	2	10	3	3	4
Other sentences	5,942	6,348	1,720	3,316	5,060	4,441	5,287
Ontario—							
Convictions	74,127	72,787	74,207	80,948	91,107	101,263	112,364
Sentences —							
Penitentiary	659	559	417	516	515	520	659
Gaol or fine	57,070	55,599	68,846	62,385	73,260	83,348	89,602
Reformatory	245	218	218	87	470	252	303
Death	6	6	4	6	3	2	3
Other sentences	16,147	16,405	4,722	17,954	16,859	17,141	21,797
Manitoba—							
Convictions	11,610	11,840	13,547	12,349	13,605	17,100	19,626
Sentences							
Penitentiary	144	171	110	135	142	221	133
Gaol or fine	8,520	8,737	12,239	9,763	9,749	12,185	13,645
Reformatory	65	54	72	31	134	151	144
Death	–	1	–	1	1	4	1
Other sentences	2,881	2,877	1,126	2,419	3,579	4,539	5,703
Saskatchewan—							
Convictions	7,384	8,504	10,069	8,921	9,986	10,944	10,018
Sentences—							
Penitentiary	53	54	57	50	54	48	46
Gaol or fine	6,624	7,501	9,579	8,461	9,032	9,927	8,901
Reformatory	–	23	15	–	22	11	20
Death	2	–	3	2	–	–	1
Other sentences	705	926	415	408	878	958	1,050

25.—Convictions and Sentences for all Offences, by Provinces, years ended Sept. 30, 1921-1927—concluded.

Provinces.	1921.	1922.	1923.	1924.	1925.	1926.	1927.
	No.	No.	No.	No.	No.	No.	No.
Alberta—							
Convictions	9,847	9,201	10,067	9,765	9,368	10,111	10,635
Sentences—							
Penitentiary	67	99	77	83	86	79	162
Gaol or fine	8,809	7,907	9,384	8,442	7,630	8,403	8,87[illegible]
Reformatory	4	19	10	4	8	12	14
Death	2	2	4	1	2	–	[illegible]
Other sentences	965	1,174	592	1,235	1,642	1,617	1,58[illegible]
British Columbia—							
Convictions	16,020	13,066	13,115	14,773	16,620	20,034	24,61[illegible]
Sentences—							
Penitentiary	194	129	123	204	170	127	237
Gaol or fine	14,617	11,822	12,349	13,757	15,332	18,638	22,974
Reformatory	15	26	31	18	49	51	49
Death	3	3	–	2	6	6	1
Other sentences	1,191	1,086	612	792	1,063	1,212	1,355
The Territories[1]—							
Convictions	40	62	44	39	95	96	95
Sentences—							
Penitentiary	–	–	2	1	–	2	1
Gaol or fine	21	39	39	33	28	91	86
Reformatory	–	–	–	–	–	–	–
Death	–	–	2	–	–	–	–
Other sentences	19	23	1	5	67	3	8

[1]Yukon Territory only for 1921-22.

Subsection 2.—Indictable Offences.

The progress of a community, from the moral point of view, is often judged by the number of convictions for indictable offences, as these are less affected than non-indictable offences by extraneous circumstances and the varying methods of law enforcement in different areas and in different years. However, in the study of such statistics it is important to have comparable figures over a period of years, and these are set out by provinces for the latest 13 years in Table **26**. Again, in Table **27** are shown the number of charges and convictions and the percentage of acquittals for the 3 years ended Sept. 30, 1925-27, the figures indicating the percentage of acquittals in the latest years.

While the number of convictions in 1927 was greater than in any other year since 1915, it should be remembered that the population of Canada has grown by something like 20 p.c. in the period covered by Table **26**.

26.—Convictions of Persons 16 years of age and upwards for Indictable Offences, by Provinces, years ended Sept. 30, 1915-1927.

Years.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon.	Total.
1915	12	840	206	2,427	7,112	1,362	1,993	2,082	1,517	24	17,57[illegible]
1916	11	519	241	3,166	6,023	914	1,711	1,895	1,503	20	16,00[illegible]
1917	21	427	228	2,667	4,824	755	1,057	894	1,058	22	11,95
1918	12	563	230	2,916	6,111	811	1,067	886	659	11	13,26
1919	14	663	241	2,960	6,605	919	1,134	1,028	951	5	14,52
1920	4	580	375	2,517	6,707	987	1,467	1,233	1,212	6	15,08
1921	15	712	313	2,654	7,548	1,159	1,220	1,263	1,282	3	16,16
1922	27	701	322	2,885	7,021	1,188	1,391	1,171	1,004	10	15,72
1923	13	400	148	2,655	6,886	1,094	1,446	1,424	1,116	1	15,188
1925	25	595	224	2,729	7,180	1,160	1,647	1,423	1,265	9	16,258
1926	3	624	244	3,084	7,751	1,215	1,654	1,254	1,385	5	17,219
1926	14	752	222	3,053	7,248	1,383	2,052	1,463	1,252	3	17,448
1927	14	680	287	3,621	7,962	1,457	1,492	1,483	1,833	3	18,836

[1]Includes 5 in Northwest Territories. [2]Includes 1 in Northwest Territories. [3]Includes 3 in Northwest Territories. [4]Includes 6 in Northwest Territories. [5]Includes 4 in Northwest Territories.

27.—Charges, Convictions and Percentages of Acquittals for Indictable Offences, by Provinces, years ended Sept. 30, 1925-1927.

NOTE.—The figures of this table do not include charges or convictions of juvenile delinquents.

Provinces.	1925.			1926.			1927.		
	Charges.	Convictions.	Acquittals.	Charges.	Convictions.	Acquittals.	Charges.	Convictions.	Acquittals.
	No.	No.	p.c.	No.	No.	p.c.	No.	No.	p.c.
Prince Edward Island	10	3	70·0	35	14	60·0	31	14	54·8
Nova Scotia	827	624	24·6	1,039	752	27·6	1,043	680	34·8
New Brunswick	296	244	17·5	297	222	25·3	345	287	16·8
Quebec	4,233	3,084	27·1	3,957	3,053	22·8	4,582	3,621	21·0
Ontario	9,838	7,751	21·2	9,470	7,248	23·5	10,301	7,962	22·7
Manitoba	1,445	1,215	15·9	1,635	1,383	15·4	1,681	1,457	13·3
Saskatchewan	1,791	1,654	71 7	2,172	2,052	5·5	1,663	1,492	10·3
Alberta	1,571	1,254	20·2	1,739	1,463	15·9	1,779	1,483	16·6
British Columbia	1,669	1,384	17·0	1,621	1,252	22·8	2,130	1,833	13·9
Yukon	2	2	–	4	3	25·0	4	3	25·0
N.W. Territories	3	3	–	7	6	14·3	4	4	–
Canada	**21,685**	**17,219**	**25·9**	**21,976**	**17,448**	**20·6**	**23,563**	**18,836**	**21·1**

Classes of Indictable Offences.—Indictable offences are divided under the Canadian system into six main classes, as follows:—offences against the person, offences against property with violence, offences against property without violence, malicious offences against property, forgery and other offences against the currency, and other indictable offences. Convictions in the first, third, fourth, fifth and sixth classes show an increase between 1925 and 1927, but convictions for offences against property with violence show a decline in the two years. Details by offences are given in Table **28** and the details of the disposition of the charges in Table **29**, which shows, among other information, that convictions of females numbered 2,013 in 1927 as against 2,055 in 1926, 2,035 in 1925, 1,826 in 1924, 1,609 in 1923, 1,609 in 1922, and 1,765 in 1921. Details as to the occupations, conjugal condition, educational status, ages, use of liquors, birthplaces and religions of those convicted of indictable offences are given in Table **30**.

28.—Indictable Offences, by Classes, during the years ended Sept. 30, 1925-1927.

NOTE.—The figures of this table do not include charges or convictions of juvenile delinquents.

Classes and Offences.	1925.		1926.		1927.	
	Charges.	Convictions.	Charges.	Convictions.	Charges.	Convictions.
	No.	No.	No.	No.	No.	No.
CLASS I.—OFFENCES AGAINST THE PERSON.						
Murder	54	18	51	15	45	11
Murder, attempt to commit	26	11	13	7	26	16
Manslaughter	76	37	78	45	94	40
Abortion and concealing birth of infants	31	20	23	19	32	21
Rape and other crimes against decency	639	395	613	370	676	442
Procuration	44	21	29	20	63	42
Bigamy	41	34	44	31	72	66
Shooting, stabbing and wounding	222	128	267	168	289	192
Assault on females and wife	90	66	134	111	196	145
Aggravated assault	608	414	753	482	788	519
Assault on police officer	489	439	533	475	513	471
Assault and battery	1,213	996	1,487	1,261	1,215	951
Refusal to support family	283	237	307	218	261	170
Wife desertion	15	15	27	23	13	12
Various other offences against the person	110	77	162	123	173	111
Total	**3,941**	**2,908**	**4,521**	**3,368**	**4,456**	**3,209**

28.—Indictable Offences, by Classes, during the years ended Sept. 30, 1925-1927—concluded.

Classes and Offences.	1925.		1926.		1927.	
	Charges.	Convictions.	Charges.	Convictions.	Charges.	Convictions.
CLASS II.—OFFENCES AGAINST PROPERTY WITH VIOLENCE.	No.	No.	No.	No.	No.	No.
Burglary, house, warehouse and shop breaking	1,977	1,705	1,711	1,417	1,918	1,7
Robbery and demanding with menaces	310	200	273	207	263	1
Highway robbery	33	29	2	1	6	
Total	**2,320**	**1,934**	**1,986**	**1,625**	**2,187**	**1,8**
CLASS III.—OFFENCES AGAINST PROPERTY WITHOUT VIOLENCE.						
Bringing stolen goods into Canada	4	4	2	2	–	–
Embezzlement	9	8	10	6	36	3
False pretences	1,025	805	1,116	882	1,439	1,1
Feloniously receiving stolen goods	608	403	604	400	535	3
Fraud and conspiracy to defraud	940	667	882	593	1,024	6
Horse, cattle and sheep stealing	69	44	53	37	32	
Theft	8,262	6,610	8,139	6,651	8,632	7,1
Theft of mail	37	33	24	21	37	
Theft of automobile	263	222	417	366	541	4
Total	**11,217**	**8,796**	**11,247**	**8,958**	**12,276**	**9,9**
CLASS IV.—MALICIOUS OFFENCES AGAINST PROPERTY.						
Arson	69	34	76	38	79	3
Malicious injury to horses and cattle, and other wilful damage to property	233	161	269	201	297	2
Total	**302**	**195**	**345**	**239**	**376**	**2**
CLASS V.—FORGERY AND OTHER OFFENCES AGAINST THE CURRENCY.						
Offences against the currency	7	3	6	2	3	
Forgery and uttering forged documents	457	405	451	383	629	4
Total	**464**	**408**	**457**	**385**	**632**	**4**
CLASS VI.—OTHER OFFENCES NOT INCLUDED IN THE FOREGOING CLASSES.						
Breach of the Trade Marks Act	83	83	49	48	62	6
Attempt to commit suicide	78	61	82	71	104	7
Carrying unlawful weapons	108	89	140	125	107	9
Criminal negligence	79	44	116	55	115	4
Conspiracy	88	39	135	53	–	–
Indecent exposure and other offences against public morals	203	179	221	191	76	6
Intimidation	–	–	42	29	39	2
Keeping bawdy houses and inmates thereof	1,030	942	831	739	893	8
Offences against gambling and lottery acts	515	450	590	550	984	9
Offences against revenue laws	125	120	233	193	261	2
Illicit stills	560	548	400	376	371	3
Perjury and subornation of perjury	125	60	107	60	117	6
Prison breach and escape from prison	151	142	162	152	134	1
Riot and affray	87	70	145	113	125	7
Sodomy and bestiality	71	58	77	55	76	4
Various other misdemeanours	138	93	90	63	172	9
Total	**3,441**	**2,978**	**3,420**	**2,873**	**3,636**	**3,0**
Grand Total	**21,685**	**17,219**	**21,976**	**17,448**	**23,563**	**18,8**

29.—Charges, Acquittals, Convictions and Sentences in respect of Indictable Offences, years ended Sept. 30, 1920-1927.

Charges and Sentences.	1920.	1921.[1]	1922.[1]	1923.[1]	1924.[1]	1925.[1]	1926.[1]	1927.[1]
	No.	No.	No.	No.	No.	No.	No.	No.
Charges	23,213	21,478	21,032	19,759	20,667	21,685	21,976	23,563
Acquittals[2]	4,746	4,775	4,896	4,550	4,389	4,441	4,510	4,685
Persons detained for lunacy	24	30	27	21	20	26	18	42
Convictions	18,443	16,169	15,720	15,188	16,258	17,219	17,448	18,836
Males	16,722	14,404	14,111	13,579	14,432	15,184	15,393	16,823
Females	1,721	1,765	1,609	1,609	1,826	2,035	2,055	2,013
First conviction	15,096	12,589	13,022	12,686	13,109	14,172	14,286	14,761
Second conviction	1,668	1,845	1,335	1,212	1,329	1,345	1,365	1,632
Reiterated conviction	1,679	1,762	1,363	1,290	1,820	1,702	1,797	2,443
Sentences—								
Option of a fine	5,447	4,900	4,430	4,916	5,142	4,712	5,469	5,606
Under one year in gaol	3,750	3,912	3,982	3,601	3,702	4,385	4,612	5,016
One year and over in gaol	886	1,260	1,531	1,057	1,461	1,336	1,309	1,456
Two years and under five in penitentiary	873	1,122	1,153	949	1,054	1,244	1,198	1,370
Five years and over in penitentiary	245	481	435	223	330	278	351	364
For life in penitentiary	7	9	11	2	5	14	4	5
Death	26	17	19	15	22	18	15	12
Committed to reformatories	615	126	89	105	149	370	172	195
Other sentences	6,594	4,342	4,070	4,320	4,393	4,862	4,318	4,812

[1]Juvenile delinquents not included.
[2]Includes cases where proceedings were stayed, disagreements of jury, etc.

30.—Occupations, etc., of Persons Convicted of Indictable Offences, 1921-1927[1].

Items.	1921.	1922.[2]	1923.[2]	1924.[2]	1925.[2]	1926.[2]	1927.[2]
	No.	No.	No.	No.	No.	No.	No.
Occupations—							
Agriculture	1,034	1,248	1,137	893	951	919	1,014
Lumbering	54	42	35	23	63	68	112
Fishing	41	57	69	20	71	56	61
Mining	122	166	167	29	162	168	169
Manufacturing and construction	1,522	1,445	1,156	1,235	1,316	1,485	1,786
Transportation	812	513	555	668	522	735	647
Trade	1,619	1,648	1,924	1,503	1,802	2,258	2,236
Service	999	1,280	1,092	1,725	1,766	1,250	1,916
Professional	194	89	90	79	95	84	95
Labourers	5,914	6,105	4,771	4,911	5,425	5,161	6,058
Not given	7,085	3,127	4,192	5,172	5,045	5,264	4,742
Total	**19,396**	**15,720**	**15,188**	**16,258**	**17,219**	**17,448**	**18,836**
Conjugal condition—							
Married	4,811	5,200	5,245	5,284	5,777	5,928	6,559
Single	11,643	7,952	6,709	7,595	8,445	7,712	9,321
Widowed	182	218	171	228	263	198	247
Not given	2,760	2,350	3,063	3,150	2,734	3,610	2,709
Educational status—							
Unable to read or write	904	672	512	446	528	494	641
Elementary	15,598	12,636	11,330	13,279	13,506	13,066	15,278
Superior	245	326	218	199	201	163	215
Not given	2,649	2,086	3,128	2,334	2,984	3,725	2,702
Ages—							
Under 16 years	3,227	–	–	–	–	–	–
16 years and under 21	3,289	3,169	2,641	3,103	3,464	3,192	3,760
21 years and under 40	7,898	8,205	7,277	7,631	8,238	7,753	9,011
40 years and over	1,932	2,182	2,559	2,535	2,514	2,845	3,110
Not given	3,050	2,164	2,711	2,939	2,973	3,658	2,955
Use of liquors—							
Moderate	11,331	8,990	8,509	9,013	9,518	9,121	10,848
Immoderate	1,322	1,197	1,015	944	1,330	1,158	1,399
Not given	6,743	5,533	5,664	6,301	6,371	7,169	6,589
Birthplace—							
England and Wales	1,659	1,342	1,190	1,308	1,310	1,230	1,335
Ireland	268	240	179	207	256	231	235
Scotland	458	359	390	440	389	427	554
Canada	10,638	8,607	7,802	8,384	9,494	9,237	10,710
Other British Possessions	124	63	73	100	85	81	136

[1]Years ended Sept. 30.
[2]Juveniles were first excluded from statistics of indictable offences in 1922. This exclusion was carried back to 1921 in the case of charges, sentences, etc., (Table 29), but this could not be done in the case of occupations, etc. (Table 30). Figures for 1922 to 1927 do not include juveniles.

30.—Occupations, etc., of Persons Convicted of Indictable Offences, 1921-1927[1] —concluded.

Items.	1921.	1922.[2]	1923.[2]	1924.[2]	1925.[2]	1926.[2]	1927.[2]
	No.	No.	No.	No.	No.	No.	No.
Birthplaces—concluded.							
United States	1,113	992	766	767	789	711	844
Other foreign countries	2,511	2,188	1,969	1,738	1,897	1,962	2,185
Not given	2,625	1,929	2,819	3,314	2,999	3,569	2,837
Religion—							
Baptist	449	344	318	319	435	262	381
Roman Catholic	6,461	5,077	4,620	4,171	5,057	5,437	5,977
Church of England	2,527	2,223	1,784	2,123	2,429	2,243	2,392
Methodist	1,500	1,358	1,027	1,101	1,100	786	889
Presbyterian	1,603	1,409	1,391	1,565	1,752	1,471	1,555
United Church	–	–	–	–	–	284	530
Other Protestant	2,381	1,623	1,737	1,388	1,596	1,706	2,044
Jews	564	407	340	408	354	422	433
Other denominations	854	815	674	857	899	999	1,161
Not given	3,057	2,464	3,297	4,326	3,597	3,838	3,474
Residence—							
Cities and towns	16,120	12,404	11,886	12,806	13,917	14,323	15,393
Rural districts	3,074	2,940	2,941	2,762	2,941	2,936	2,816
Not given	202	376	361	690	361	189	627

[1]Years ended Sept. 30. [2]Figures for 1922 to 1927 do not include juveniles.

Subsection 3.—Summary Convictions.

The following statistics relate to "non-indictable" offences committed by adults (persons 16 years of age or over) and disposed of by police magistrates or other justices of the peace, under authority of the Summary Convictions Act. Such convictions numbered 193,240 in the year ended Sept. 30, 1927, as compared with 169,913 in 1926, 151,825 in 1925, 142,999 in 1924, 137,493 in 1923, 136,322 in 1922 and 155,376 in 1921. There were 182,392 convictions of males, as against 159,528 in 1926, 142,940 in 1925 and 134,608 in 1924, and 10,848 of females, as against 10,385 in 1926, 8,885 in 1925 and 8,391 in 1924.

Details of summary convictions are given by provinces and by offences in Table 31 for the past four years from 1924 to 1927. Particularly notable in these figures is the increase of convictions for offences against liquor, prohibition, and temperance Acts from 10,449 in 1924 to 12,477 in 1927, and the decline in convictions for offences against the Opium and Narcotic Drugs Act from 1,858 in 1922 to 1,297 in 1923, 996 in 1924, 823 in 1925, 743 in 1926 and 491 in 1927.

31.—Summary Convictions, by Provinces and by Offences, 1924-1927.[1]

A.—BY PROVINCES.

Provinces.	1924.	1925.	1926.	1927.	Increase or Decrease, 1926-27.	
Prince Edward Island	232	235	345	392	+	47
Nova Scotia	3,355	2,790	3,568	4,362	+	794
New Brunswick	2,499	2,417	2,418	2,565	+	147
Quebec	22,803	25,364	24,428	28,732	+	4,304
Ontario	73,768	79,470	90,061	101,345	+	11,284
Manitoba	11,189	10,724	13,913	16,420	+	2,507
Saskatchewan	7,274	8,020	8,614	8,243	–	371
Alberta	8,342	7,840	8,142	8,801	+	659
British Columbia	13,508	14,875	18,337	22,292	+	3,955
Yukon and N.W.T.	29	90	87	88	+	1
Total	**142,999**	**151,825**	**169,913**	**193,240**	+	**23,327**

[1]Years ended Sept. 30.

31.—Summary Convictions, by Provinces and by Offences, 1924-1927[1]—concluded.

B.—BY OFFENCES.

Offences.	1924.	1925.	1926.	1927.	Increase or Decrease, 1926-27.	
Assault	3,277	3,404	2,967	3,436	+	469
Carrying firearms and unlawful weapons	492	410	385	386	+	1
Contempt of court	54	21	29	32	+	3
Cruelty to animals	371	422	446	545	+	99
Disturbing religious and like meetings	22	40	22	25	+	3
Fishery and Game Acts, offences against	1,346	1,369	1,195	1,245	+	50
Gambling Acts, offences against	4,514	5,252	6,347	5,858	−	389
Immigration Act, offences against	61	58	77	61	−	16
Inspection and Sales Acts, offences against	217	194	142	227	+	85
Adulteration of Food (Food and Drug Acts)	152	263	231	240	+	9
Weights and Measures Acts, offences against	81	136	106	82	−	24
Liquor, Prohibition and Temperance Acts, offences against	10,449	11,636	13,512	12,477	−	1,035
Malicious or wilful damage to property	731	738	679	807	+	128
Masters' and Servants' Acts, offences against	259	233	140	210	+	70
Non-payment of wages	1,037	1,103	1,277	1,231	−	46
Municipal Acts and By-laws, breaches of various	71,517	75,621	90,901	109,777	+	18,876
Non-support of family and neglecting children	906	1,003	932	1,192	+	260
Contributing to delinquency of children	412	836	709	1,002	+	293
Opium and Narcotic Drug Act, various offences against	996	823	743	491	−	252
Profanation of the Lord's Day	642	1,067	784	824	+	40
Railway Acts, various offences against	355	615	730	775	+	45
Trespass on railway	669	1,070	731	925	+	194
Stealing ride on railway	464	681	404	929	+	525
Revenue Laws, offences against	518	502	422	804	+	382
Trespass	683	645	829	593	−	236
Vagrancy	4,483	5,665	6,805	7,701	+	896
Drunkenness	27,338	26,751	28,317	31,171	+	2,854
Insulting, abusive and profane language	690	611	576	629	+	53
Frequenting bawdy houses	3,957	3,553	3,267	2,397	−	870
Loose, idle, disorderly and breach of the peace	4,788	5,428	4,436	5,444	+	1,008
Various other offences	1,518	1,675	1,772	1,724	−	48
Total	**142,999**	**151,825**	**169,913**	**193,240**	+	**23,327**

[1]Years ended Sept. 30.

Convictions for Drunkenness.—The number of summary convictions for drunkenness in Canada in 1927 was 31,171, as compared with 28,317 in 1926, 26,751 in 1925, and 27,338 in 1924, an increase of 2,854 or 10·1 p.c. in the latest year. Table **32** shows the number of convictions by provinces for the seven years 1921 to 1927, with increases and decreases for 1927 as compared with 1926.

Convictions for drunkenness in Canada were at their maximum in 1913, *viz.*: 60,975. Convictions in the years from 1914 to 1920 were 60,067, 41,161, 32,730, 27,882, 21,026, 24,217 and 39,769 respectively. For details by provinces in these years see the 1918 Year Book, p. 619, and the 1925 Year Book, p. 977.

32.—Convictions for Drunkenness, by Provinces, in the years ended Sept. 30, 1921-1927.

Provinces.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	Increase (+) or Decrease (−), 1927 as compared with 1926.	
	No.	No.	No.	No.	No.	No.	No.	No.	p.c.
Prince Edward Island	144	162	164	94	112	168	182	+ 14	+ 8·33
Nova Scotia	2,156	1,492	1,392	1,456	1,466	1,898	2,053	+ 155	+ 8·16
New Brunswick	1,264	1,088	1,074	1,176	1,171	1,234	1,397	+ 163	+ 10·21
Quebec	9,943	7,103	6,260	6,146	6,342	5,364	7,000	+ 1,636	+ 30·50
Ontario	14,498	10,063	11,370	12,993	11,811	13,752	14,334	+ 582	+ 4·28
Manitoba	1,429	1,623	1,680	1,948	1,948	1,871	1,883	+ 12	+ 0·64
Saskatchewan	708	816	884	505	668	487	618	+ 131	+ 26·90
Alberta	1,838	1,608	1,277	1,464	1,374	1,413	1,182	− 231	− 16·35
British Columbia	2,376	1,081	1,443	1,545	1,844	2,114	2,496	+ 382	+ 18·07
Yukon Territory	2	12	21	11	15	16	26	+ 10	+ 62·50
Canada	**34,358**	**25,048**	**25,565**	**27,338**	**26,751**	**28,317**	**31,171**	**+ 2,854**	**+ 10·08**

Subsection 4.—Juvenile Delinquency.

Juveniles under 16 years of age to the number of 8,185 were found guilty of various offences in the year ended Sept 30, 1927, as compared with 7,831 in 1926, an increase of 354. Of these 5,156 were convicted of "major" offences and 3,029 of "minor" offences, terms which correspond very nearly to "indictable" and "non-indictable" offences, as applied to adults. Convictions for "major" offences numbered 5,090 in 1926 and convictions for "minor" offences 2,741. The offences proven against juveniles in 1926 and 1927 are shown by provinces in Table **33** and by chief types of major offences committed in Table **34.**

33.—Juvenile Delinquents convicted of Major and Minor Offences, by Provinces and Sex, 1926 and 1927.

Provinces.		Major Offences.			Minor Offences.		
		1926.	1927.	Increase or Decrease.	1926.	1927.	Increase or Decrease.
Prince Edward Island	M.	6	21	+ 15	–	–	–
	F.	–	–	–	–	–	–
	Total	6	21	+ 15	–	–	–
Nova Scotia	M.	172	169	− 3	112	82	− 30
	F.	15	5	− 10	2	10	+ 8
	Total	187	174	− 13	114	92	− 22
New Brunswick	M.	55	155	+ 100	18	58	+ 40
	F.	–	14	+ 14	–	1	+ 1
	Total	55	169	+ 114	18	59	+ 41
Quebec	M.	795	832	+ 37	500	637	+ 137
	F.	75	56	− 19	101	215	+ 114
	Total	870	888	+ 18	601	852	+ 251
Ontario	M.	1,995	1,973	− 22	791	948	+ 157
	F.	86	60	− 26	75	75	–
	Total	2,081	2,033	− 48	866	1,023	+ 157
Manitoba	M.	925	917	− 8	744	680	− 64
	F.	77	72	− 5	58	80	+ 22
	Total	1,002	989	− 13	802	760	− 42
Saskatchewan	M.	231	234	+ 3	25	29	+ 4
	F.	15	19	+ 4	7	1	− 6
	Total	246	253	+ 7	32	30	− 2
Alberta	M.	320	262	− 58	152	81	− 71
	F.	6	5	− 1	28	3	− 25
	Total	326	267	− 59	180	84	− 96
British Columbia	M.	305	356	+ 51	113	116	+ 3
	F.	12	6	− 6	15	13	− 2
	Total	317	362	+ 45	128	129	+ 1
Canada	**M.**	**4,804**	**4,919**	**+ 115**	**2,455**	**2,631**	**+ 176**
	F.	**286**	**237**	**− 49**	**286**	**398**	**+ 112**
	Total	**5,090**	**5,156**	**+ 66**	**2,741**	**3,029**	**+ 288**

Major Offences.—In Table 34 are shown the various major offences for which juvenile delinquents were convicted in 1926 and 1927. It will be observed that theft, together with house- and shop-breaking, accounts for the great bulk of the offences; in 1927, 79 p.c. of the major offences were of this character.

34.—Juvenile Delinquents convicted of Major Offences, by Offences, 1926 and 1927

Offences.	1926.	1927.	Increase or Decrease.	
			No.	p.c.
Assault, aggravated, and wounding	16	14	− 2	− 12·50
" common	109	99	− 10	− 9·17
" indecent	22	28	+ 6	+ 27·27
Sexual offences	8	5	− 3	− 37·50
Endangering life by obstructing railway	60	28	− 32	− 53·33
Manslaughter	2	−	− 2	− 100·00
Other offences against the person	3	5	+ 2	+ 66·67
House and shop-breaking	653	770	+ 117	+ 17·92
Robbery	6	2	− 4	− 66·67
Theft and receiving stolen goods	3,462	3,289	− 173	− 5·00
Fraud and false pretences	8	22	+ 14	+ 175·00
Arson	30	5	− 25	− 83·33
Other wilful damage to property	553	793	+ 240	+ 43·40
Forgery	14	7	− 7	− 50·00
Immoral and indecent conduct	114	68	− 46	− 40·35
Various other misdemeanours	30	21	− 9	− 30·00
Total	**5,090**	**5,156**	+ 66	+ 1·30

Minor Offences.—Of the 3,029 juvenile delinquents found guilty of minor offences in 1927, 755 were convicted of breaches of municipal by-laws, 479 of disorderly conduct and disturbing the peace, 340 of disobedience and incorrigibility, 463 of trespass, 182 of truancy, 296 of vagrancy and indecent conduct, and 514 of other minor offences.

Subsection 5.—Police Statistics.

In 1927, 143 cities and towns with a population of 4,000 and over supplied police statistics to the Dominion Bureau of Statistics. These cities and towns, with an aggregate population of 3,380,659, had 4,460 policemen, who made 219,573 arrests and summonses. The total number of offences committed during the year and made known to the police was 253,588, and the number of prosecutions was 209,843, or 83 p.c. of the known offences. Convictions secured in respect of these offences numbered 174,054, being 68·6 p.c. of the known offences and 82·9 p.c. of the prosecutions.

The number of automobiles reported stolen was 9,364, of which 9,076 were recovered. Of 7,251 bicycles stolen 3,958 were recovered. The value of other lost articles reported to the police was $1,591,688, of which 60 p.c. was recovered.

Subsection 6.—Penitentiary Statistics.

The Penitentiaries Branch of the Department of Justice is charged with the administration of the various penitentiaries in Canada. Six institutions are included in the system, the two largest of which are at Portsmouth, Ont., and St. Vincent de

Paul, Que., while the other four are at Dorchester, N.B., Prince Albert, Sask., Stony Mountain, Man., and New Westminster, B.C. During the fiscal year ended Mar. 31, 1927, the average daily population of these institutions was 2,456 and the total net expenditure for the year was $1,502,034. Statistics of the inmates in custody on Mar. 31, 1927, were given on pp. 1009-1011 of the 1927-28 Year Book.

All female convicts, numbering 27 on Mar. 31, 1925, 34 on Mar. 31, 1926, 39 on Mar. 31, 1927, are kept in the penitentiary at Portsmouth, a suburb of Kingston, where a special wing and staff are maintained for their use and supervision.

Section 10.—The Civil Service of Canada.

Prior to 1882, appointments to the Civil Service of Canada were made directly by the Government of the day. In that year, a Board of Civil Service Examiners was appointed to examine candidates and issue certificates of qualification to those successful at examinations. Appointments, however, were still made by the Government.

The Royal Commission of 1907, appointed to inquire into the Civil Service Act and its operation, reported in favour of the creation of a Civil Service Commission; in 1908 this body was appointed, consisting of two members appointed by the Governor in Council and holding office during good behaviour, but being removable by the Governor-General on address of the Senate and House of Commons. The Civil Service was classified into three divisions under the Deputy Heads of Departments, each division consisting of two sub-divisions, each of these having its scale of salaries. The Commission was charged with the organization of and appointments to the Inside Service (at Ottawa), certain appointments to be made after open competition and others after qualifying tests, also with holding qualifying examinations for the Outside Service (the service apart from Ottawa), from which selections for appointments could be made by the various Departments. All British subjects between 18 and 35 years of age who had resided in Canada for three years were eligible to try these examinations.

In 1918 a third member of the Civil Service Commission was appointed, and by the Civil Service Act of that year the principle of appointment after open competition was applied to the Outside as well as the Inside Service. The Act also provided for the organization by the Commission of the various Government Departments, for the establishing of new rates of compensation, and for the principle of promotion by merit whenever consistent with the best interests of the Service. Provision was also made for preference in the matter of appointment to the Service to be given to qualified applicants who had served in the Great War.

From April, 1924, a monthly return of personnel and salaries has been made by each Department to the Dominion Bureau of Statistics, according to a plan that ensures comparability between Departments and continuity in point of time. The institution of this system was preceded by an investigation back to 1912, the summary results of which are presented in Table 35.

During the war years, as will be seen from Table 35, the number of employees increased very rapidly, as a result of the enlargement of the functions of government and the imposition of new taxes, necessitating additional officials as collectors. Such new services as the Department of Soldiers' Civil Re-establishment and the

Soldier Settlement Board were also created. The maximum was reached in January, 1920, when 47,133 persons were employed, a number which has since decreased to 40,740 in January, 1928. It may be added that, out of 41,243 in March 1928, 1,098 in the Income Tax Branch and 1,939 in the Department of Soldiers' Civil Re-establishment, or 3,037 in all, were engaged in services of outstanding importance which had no existence before the war. Further, an additional 10,871 persons were, in March, 1928, employed in the Post Office Department, performing services of an industrial rather than of a governmental type, and receiving their salaries out of the payments of the public for services immediately rendered, rather than out of taxation. This postal service alone accounted for $2,540,251 of the $6,929,013 paid in salaries in March, 1928, or 36·66 p.c. of the total.

The statistics of numbers of employees and of salaries, now being secured monthly, are more comprehensive than those previously published, as a result of the inclusion of various classes of employees, largely "part-time", "seasonal" and "fees of office" employees, who were not included in the report published in 1925. These employees were largely in the Departments of Marine and Fisheries and Public Works. There remain, however, many persons in the "non-enumerated classes", whose numbers cannot be supplied monthly by the departmental officials, but whose compensation is included in the monthly figures of expenditure on personnel, as supplied in Table 36.

35.—Summary of Civil Service Employees (permanent and temporary) of the Government of Canada, together with total Salaries, in January of the years 1912-1928, inclusive.

Years.	Employees.	Salaries.	Bonus.	Salaries and Bonus.
	No.	$	$	$
1912	20,016	1,519,778	16,413	1,536,190
1913	22,621	1,780,703	22,569	1,803,272
1914	25,107	1,960,238	27,971	1,988,209
1915	28,010	2,268,700	32,167	2,300,867
1916	29,219	2,400,068	31,431	2,431,499
1917	32,435	2,673,767	29,167	2,702,934
1918	38,369	3,147,461	94,321	3,241,782
1919	41,825	3,552,686	557,882	4,110,568
1920	47,133	4,423,157	965,538	5,388,695
1921	41,957	4,414,669	861,973	5,276,642
1922	41,094	4,369,509	616,105	4,985,614
1923	38,992	4,268,357	463,470	4,731,827
1924	38,062	4,297,467	449,228	4,746,695
1925[1]	38,645	4,473,470	166,461	4,639,931
1926[1]	39,097	4,699,076	–	4,699,076
1927[1]	39,440	4,786,615	–	4,786,615
1928[1]	40,740	5,161,558	–	5,161,558

[1] Figures for January, 1925-28 are not comparable with those for preceding Januaries, because monthly records now being published include various classes of employees not included in the historical record for the 13 years 1912-24. In Table 36 will be found comparable figures of employees in the various Departments in March, 1927, and March, 1928.

Table 36, which gives statistics by Departments, with a further classification by principal branches where such are recorded, is inserted to give comparable figures for the latest months. In the month of March, 1928, the total number of employees in the enumerated classes was 41,243 and the total expenditure in wages and salaries for all classes of employees was $6,929,012.58, as compared with 39,592 and $6,570,399.98 respectively in March, 1927.

36.—Total Number of Civil Service Employees, by Departments and Principal Branches ("Non-enumerated Classes" excluded), and Total Expenditure on Salaries, Bonuses and Wages of all Employees ("Non-enumerated Classes" included), March, 1927, and March, 1928.

Departments.	March 31, 1927.		March 31, 1928.	
	No.	Expenditure.	No.	Expenditure.
		$		$
1. Agriculture—				
Main Department	817	113,962·58	863	129,258·51
Experimental Farms	403	95,080·54	418	100,485·21
Health of Animals	538	87,837·22	565	96,216·28
Total	*1,758*	*296,880·34*	*1,986*	*325,960·00*
2. Archives	78	11,903·43[2]	83	12,700·81
3. Auditor-General's	206	29,207·75	202	30,037·37
4. Civil Service Commission[1]	143	19,948·96	144	20,079·44
5. Chief Electoral Officer	12	1,715·38	5	670·00
6. External Affairs—				
Main Department	62	8,876·05	75	10,493·05
The High Commissioner's Office	28	5,018 37[2]	29	4,548·37[2]
The Paris Agency Office	7	1,975·11[2]	7	2,235·11[2]
The Washington Office	10	3,390·34[2]	16	3,967·18[2]
The League of Nations	2	600·00[2]	2	730·00[2]
Total	*109*	*19,919·87[2]*	*129*	*21,973·71*
7. Finance	409[3]	46,249·67	421[3]	47,684·33
8. Governor-General's Secretary[4]	12	2,722·50	11	2,919·24
9. Health	287	37,721 89[5]	320	40,794·76
10. House of Commons—				
Clerk of the House	208	37,473·31	213	39,531·80
Sergeant-at-Arms	296	23,934·52	305	25,157·74
Total	*504*	*61,407·83*	*518*	*64,689·54*
11. Immigration and Colonization	869	103,402·33	887	110,384·04
12. Indian Affairs—				
Main Department	611	49,918·45	608	57,330·13
Educational Branch	318	18,179·24	326	18,629·00
Total	*929*	*68,097·69*	*934*	*75,959·13*
13. Insurance	34	7,875·52	36	7,548·37
Fire Prevention Branch	2	480·00	2	500·00
14. Interior	2,132	308,947·43	2,229	337,301·93
15. International Joint Commission	5	2,373·33	5	2,383·33
16. Justice—				
Main Department	47	9,907·90	44	9,113·65
Remission Branch	9	1,374·56	10	2,016·74
Purchasing Agent's Office	6	810·00	6	880·00
Penitentiaries	558	67,750·51	583	74,539·93
Supreme Court	18	3,133·36	22	3,761·73
Exchequer Court	9	1,866·74	10	1,956·74
Total	*647*	*84,843·07*	*675*	*92,268·79*
17. Labour—				
Main Department	95	14,769·28	102[6]	16,365·97
Annuities	11	1,355·45	19	2,335·00
Technical Education	3	766·74	4	846·74
Total	*109*	*16,891·47*	*125*	*19,547·71*
18. Library of Parliament	20	3,912·62	21	4,240·87

[1] Including Commissioners and their salaries. [2] Including living allowance. [3] Including 2 employees on leave without pay. [4] Salaries of A.D.C.'s are included, but not their numbers. [5] Refunds have been deducted. [6] Including one employee on leave without pay.

36.—Total Number of Civil Service Employees, by Departments and Principal Branches ("Non-enumerated Classes" excluded), and Total Expenditure on Salaries, Bonuses and Wages of all Employees ("Non-enumerated Classes" included), March, 1927, and March, 1928—concluded.

Departments.	March 31, 1927.		March 31, 1928.	
	No.	Expenditure.	No.	Expenditure.
		$		$
19. Marine and Fisheries—				
Marine Branch	3,358	344,886·35	3,420	357,372·48
Fisheries Branch[1]	333	87,356·71	341	91,486·62
Meteorological Branch	501	14,215·72	522	14,775·31
Total	*4,192*	*446,458·78*	*4,283*	*463,634·41*
20. Mines	310	55,214·22	343	62,897·33
21. National Defence—				
General Defence Administration	250	34,398·78	241	36,005·37
Dominion Arsenal, Quebec, inc. Ammun. Inspection	57	23,303·35	58	27,365·66
Militia Services	517	48,455·41	549	53,080·83
Naval Services	153	26,095·96	151	31,818·53
Air Services	49	5,042·70	65	7,076·25
Military Topographic Surveys	23	4,034·74	23	4,426·74
Royal Military College	70	9,353·02	72	9,939·47
Northwest Territories	4	625·00	4	730·00
Total	*1,123*	*151,308·96*	*1,163*	*170,442·85*
22. National Revenue	4,263	592,496·03	4,673	674,559·56
Income Tax Division	989	197,726·70[5]	1,098	143,055·60
Total	*5,252*	*790,222·73*	*5,771*	*817,615·16*
23. Pensions[2]	29	7,548·33	30	7,718·33
24. Post Office—				
Civil Government	815[3]	106,952·26	838[4]	110,755·27
Outside Service	9,640	2,323,328·54	10,033	2,429,495·86
Total	*10,455*[3]	*2,430,280·80*	*10,871*[4]	*2,540,251·13*
25. Privy Council	21	3,779·24	21	4,168·44[5]
26. Public Printing and Stationery	690	101,390·50	696	107,702·39
27. Public Works—				
Inside Service	309	51,297·44	322	55,940·71
Outside Service	2,910	364,399·89	2,922	333,763·87
Government Telegraph Service	617	64,625·36	689	67,648·37
Total	*3,836*	*480,322·69*	*3,933*	*457,352·95*
28. Railways and Canals[2]	1,281	289,233·69	1,328	354,091·88
29. Royal Canadian Mounted Police	47	87,400·91	48	89,894·38
30. Secretary of State	99	12,445·80	100	13,366·30
Patents and Copyrights	89	14,388·58	97	13,965·88
31. Senate	121	15,096·31	118	15,221·45
32. Soldiers' Civil Re-establishment	1,897	244,920·00	1,890	251,220·00
Federal Appeal Board	48	10,019·99	49	10,509·99
33. Soldier Settlement Board	496	70,343·15	546	79,161·06
34. Trade and Commerce—				
Main Department	72	39,496·21	103	44,016·41
Grain Commissioners' Staff	678	102,350·07	752	118,759·16
Dominion Bureau of Statistics	336	38,456·55	237	28,404·22
Weights and Measures	120	17,754·46	124	19,632·37
Electricity and Gas	81	12,575·42	85	14,365·35
Commercial Intelligence Service	54	24,891·51	62	26,977·77
Total	*1,341*	*235,524·22*	*1,363*	*252,155·28*
Grand Total	**39,592**	**6,570,399·98**	**41,243**	**6,929,012·58**

[1] Including settlement of B.C. and N.S. Fisheries Divisions paylists for February and March. [2] Including Commissioners and their salaries. [3] Exclusive of one employee on leave without pay. [4] Including one employee on leave without pay. [5] Including arrears.

Section 11.—Harbour Commissions.

A number of the harbours of Canada are administered by corporate bodies known as Harbour Commissions. Each Commission is constituted by a special Act of the Dominion Parliament, the number of Commissioners varying from three to five. The property of the Crown in the harbour is placed under the jurisdiction of the Commission and the Commissioners are authorized to acquire and hold real and personal property for the improvement and development of the harbour, but any property acquired from the Crown may not be alienated or in any way disposed of by the Commissioners without the consent of the Governor in Council. The Commissions are given power to make by-laws for all purposes of governing the harbour property and services and for the imposition and collection of rates on vessels and on cargo landed and shipped in the harbour, also penalties for infraction of their by-laws (but every such by-law must be confirmed by the Governor in Council before becoming effective), and they have control of the expenditure of the revenue received from these sources. For the purpose of harbour development and the construction of improvements, the Commission may, with the consent of the Governor in Council, expropriate land, and borrow money on debentures issued against the security of the real and other property and revenues of the harbour. For the harbours of Quebec, Montreal and Vancouver, the Dominion Government has, for some years past, lent to the Commissioners large sums on this security, and loans, on similar conditions, have now been authorized to the more recently created commissions at Chicoutimi, Que., Saint John and Halifax. All the Commissions are under the direct supervision of an official of the Marine Department and are subject to the jurisdiction of the Minister of Marine and Fisheries in all matters.

The following harbours are administered by Commissions, the date of the Act under which each Commission received its present constitution and powers being given:—Montreal, 1894; Quebec, 1899; Three Rivers, 1882 (amended 1923); Toronto, 1911; Hamilton, 1912; Belleville, 1889; Winnipeg and St. Boniface, 1912; Vancouver, 1913; New Westminster, 1913; North Fraser, 1913; Trenton, Ont., 1922; Chicoutimi, 1926; Saint John, 1927; Halifax, 1927. The harbours of North Sydney and Pictou, Nova Scotia, were formerly under the Commission form of administration, but the legislation providing for Commissions in these harbours was repealed, and all property and rights held by the Commissioners were re-vested in His Majesty by legislation passed in the years 1914 and 1920 respectively, repeal in each case being effective from Jan. 1 following.

Harbour Masters.—In the smaller maritime communities where the harbours are not under the Commission form of administration, a harbour may be proclaimed a Public Harbour under Part 12 of the Canada Shipping Act (Chap. 186, R.S.C. 1927), and an officer known as Harbour Master appointed, who has charge of the harbour property and facilities, and whose duty it is to enforce the regulations made under the authority of the Act for the governance of persons and vessels using the harbour. He receives his remuneration from the fees levied on vessels under the terms of the Act, and operates under the direct control of the Department of Marine. Approximately 170 harbours, on both coasts of Canada, are administered in this manner.

Section 12.—The International Joint Commission.

This Commission, created in accordance with the terms of the Treaty of 1909, consists of six members, three appointed by the President of the United States and three by the King on the recommendation of the Government of Canada.[1] These do not function as separate national sections but as one international body. There is a Canadian Chairman and an American Chairman, each of whom presides at meetings held on his own side of the boundary. There are also two Secretaries, one having charge of the Commission's offices in Ottawa and the other of the offices in Washington. The Commission holds two fixed meetings, one in Ottawa on the first Tuesday in October and the other in Washington on the first Tuesday in April. Other meetings or public hearings are held at such times and places as the two Chairmen shall determine.

The present members of the Commission are:—(Canada) Charles A. Magrath, Chairman, Sir William H. Hearst, George W. Kyte; Lawrence J. Burpee, Secretary: (United States) Clarence D. Clark, Chairman, Fred T. Dubois, P. J. McCumber; William H. Smith, Secretary.

In broad terms the purpose of the International Joint Commission is, in the language of the preamble of the Treaty, to "prevent disputes regarding the use of boundary waters and to settle all questions which are now pending between the United States and the Dominion of Canada involving the rights, obligations, or interests of either in relation to the other or to the inhabitants of the other, along their common frontier, and to make provision for the adjustment and settlement of all such questions as may hereafter arise".

Under the authority vested in it by the Treaty, the Commission's functions are threefold:—By Articles III, IV and VIII it has final authority over all cases involving the use or diversion for domestic and sanitary, navigation, power or irrigation purposes, of boundary waters between Canada and the United States, or of waters flowing across the boundary, or waters flowing from boundary waters, in the event of such diversion on one side of the boundary affecting the level or flow of water on the other side of the boundary. By Article IX it becomes an investigatory body, to examine into and report upon any questions or matters of difference between the two countries arising along the common frontier, referred to it for that purpose by either government. Finally, by Article X, it is made a Court of Appeal for the final settlement of "any questions or matters of differences arising between the High Contracting Parties involving the rights, obligations, or interests of the United States or of the Dominion of Canada, either in relation to each other or to their respective inhabitants". Under Article X the Commission is therefore a miniature Hague Tribunal for the settlement of all questions at issue between these two countries; and perhaps it is equally true to say that, taking into consideration the scope of its various functions, it is to some extent a League of Nations for the particular benefit of Canada and the United States.

The Commission, during the sixteen years it has been in existence, has disposed of a large number of cases under Articles III and VIII, and has carried out several investigations under Article IX. Some of these were only of minor importance, but others involved enormous natural resources and investments on both sides of the boundary, and affected the health or material welfare of millions of people. In this class were the power cases at Sault Ste. Marie, the settlement of which involved the levels of lake Superior and the material interests of cities on its shores; the Pollution of Boundary Waters Investigation; the St. Lawrence Navigation

[1] For the text of the Treaty, see the 1911 Statutes (1-2 Geo. V, c. 28).

and Power Investigation; the Lake of the Woods Investigation; and several others. No questions have as yet been brought before the Commission under the terms of Article X.

Under Article VI the Commission is also charged with the measurement and division for irrigation purposes of the waters of the St. Mary and Milk rivers, in Alberta and Montana. Owing to certain ambiguities in the language of the Article, difficulties were found in bringing this problem to a satisfactory conclusion, but finally the Commission, by bringing together on the spot those directly interested, worked out a practicable compromise that proved generally acceptable.

The Treaty, and with it the Commission, may be terminated by either country on twelve months' notice; but it is safe to say that, as they have proved themselves most effective measures for peace and good-will between Canada and the United States, they are not likely to be discontinued.[1]

Section 13.—The Geodetic Survey of Canada.[2]

For a long time prior to 1905 efforts had been made by the Department of the Interior towards commencing a Geodetic Survey in Canada; finally, in 1905, these efforts were successful, and the late Dr. W. F. King was authorized to start triangulation and precise levelling operations in the vicinity of Ottawa. In 1909 the Geodetic Survey of Canada was organized by Order in Council and Dr. King was made its Superintendent. After his death Mr. Noel J. Ogilvie was appointed Director on Oct. 4, 1917.

The principal functions of the Geodetic Survey of Canada are:—*first*, the obtaining of precise geodetic latitudes and longitudes of points throughout the Dominion of Canada, together with its coast-lines and large waterways; *secondly*, the determination of elevations of points above mean sea-level; *thirdly*, to serve as a horizontal and vertical control for all kinds of engineering work; *fourthly*, to assist in the determination of the size and shape of the earth; *fifthly*, to investigate such scientific problems as may arise, *e.g.*, the theory of isostasy.

The Geodetic Survey provides an accurate basis for all surveys in Canada, federal, provincial, municipal and private, so that any accumulative errors of various surveys may be localized so as not to cause serious discrepancies in the production of maps and charts.

Before the Geodetic Survey of Canada was commenced, various surveys employed methods suitable to their particular requirements. Such surveys, being for different purposes, were of various degrees of accuracy, and when fitted together to make composite maps confusion was the natural result. Also, when surveys extended over long distances accumulative errors crept in, and were discovered only when one survey joined other surveys started from other points. The only way in which these errors can be avoided is to have them checked at intervals by a survey of superior accuracy, and this is one of the functions of the Geodetic Survey of Canada.

[1] For a list of the publications of the Commission, see p. 1013.
[2] For a list of the publications of the Geodetic Survey, see p. 1010.

Section 14.—The Topographical Survey.[1]

The Topographical Survey, Department of the Interior, is engaged in publishing the national topographic series of map sheets of Canada. It is also the central agency for the recording and indexing of all aerial photographs taken by the Dominion Government Services, thus preserving their use for all purposes for which they may hereafter be required, with particular regard to their utilization in connection with the development of the natural resources of the country.

The information shown upon the map sheets issued is obtained from original ground surveys, supplemented by material from all other available sources and from aerial photographs, the photographs for this purpose being taken in co-operation with the Royal Canadian Air Force of the Department of National Defence. The sheets are generally published on scales of one mile, two miles, and four miles to the inch, the scale depending on the amount of available information to be depicted and also on the economic possibilities of the area mapped. Mosaic maps on larger scales, prepared from vertical aerial photographs and covering areas of special interest, are also issued.

In its earliest history this branch had control of the survey and administration of all the resources of Dominion lands, but as the work increased other branches were formed in the Department to take over the administration of Dominion lands and the development of special natural resources, while the Topographical Survey concentrated on surveys and the publication of maps and plans. Up to the outbreak of the Great War the demand for land surveys was so insistent that little attention could be devoted to the publication of topographic maps, but all the time a control system for those maps was being laid down in the system of survey of Dominion lands, whereby an area of 180,000,000 acres of land has been surveyed. Since that time good progress has been made in the publication of topographic maps, and the work has extended to the eastern as well as the western provinces. Since 1921 the science of map-making from aerial photographs has been developed by officials of the Branch and is now largely used in conjunction with ground methods for the production of topographic maps.

In addition to the publication of topographic map sheets and to the aerial photographic work carried on, other activities include the cadastral survey of Dominion lands, photo-topographic surveys of mountainous areas, control traverse surveys of waterway systems in the newer parts of the country, exploration surveys in the northern part of Canada, the delimitation of interprovincial boundaries wherever Dominion lands are affected, surveys of mineral claims, timber berths and townsites wherever Dominion interests are concerned, the classification of land for settlement purposes, and magnetic surveys for determining the declination of the magnetic needle and the march of the compass for the whole country. There is also maintained a physical testing laboratory for standardizing measures of length, for testing thermometers, optical instruments and other instruments of precision used in surveying or engineering work.

Section 15.—The Dominion Observatories.

The Dominion Observatory, Ottawa, was founded in 1902, and completed and organized in 1905 as a branch of the Department of the Interior. It was an outgrowth of the astronomical surveys of the Department, which began in 1884

[1] For a list of the publications of the Topographical Survey, see p. 1011.

with the survey of the Railway Belt in British Columbia, continued later in the form of field latitude and longitude determinations for mapping purposes, and in connection with the survey of international boundaries. Dr. W. F. King, made Chief Astronomer of the Department in 1890, and later also International Boundary Commissioner, was appointed as the first Director of the Observatory in 1905. Within the next few years, as one of the activities of the new institution, a trigonometrical survey was begun and organized as the Geodetic Survey of Canada. After Dr. King's death in 1916, the Geodetic Survey and the International Boundary Commission were given separate status, and Dr. Otto Klotz succeeded as Director of the Observatory. The present Director, R. Meldrum Stewart, was appointed in 1924 after the death of Dr. Klotz.

The work of the Observatory comprises astronomy of position (including time-service), solar physics, astrophysics, photographic photometry, seismology, terrestrial magnetism and gravity. Results are issued as Publications of the Dominion Observatory; Volumes 1 to 5 complete, Volumes 6, 7, 8, 9 current. (For list see p. 1008).

The main instrumental equipment includes a six-inch meridian circle with accessories, three astronomical field transits, wireless equipment for transmission and receipt of wireless time signals, a twenty-inch cœlostat with Littow spectrograph and accessories, a fifteen-inch equatorial with spectrograph and equipment, a six-inch and an eight-inch photographic doublet with objective prisms, three photographic cameras with equatorial mounting, Milne-Shaw horizontal seismographs and a Wiechert vertical seismograph, magnetometers, gravity pendulums, an instrument shop and a carpenter shop.

The library contains about 12,500 volumes, including books and periodicals dealing mainly with astronomy, geophysics and related subjects.

The Dominion Astrophysical Observatory, Victoria, was founded in 1915 as an extension of the Dominion Observatory, to fill the recognized need for a larger telescope; it was completed and occupied in 1918, with Dr. J. S. Plaskett, previously astronomer at the Dominion Observatory, as Director.

The work comprises various branches of astrophysics, more particularly stellar radial velocities, spectroscopic parallaxes, spectral classification and stellar temperatures.

Results are issued as Publications of the Dominion Astrophysical Observatory; Volumes 1 to 3 complete, Volume 4 current. (For list see p. 1009).

The equipment consists of a seventy-two-inch reflecting telescope, which can be used in either the Newtonian or Cassegrain form, with complete accessories for spectroscopic and photographic work. It is the second largest telescope in the world, and is surpassed by none in nature and quality of equipment.

The library contains about 2,500 volumes dealing with astrophysics and related sciences.

Section 16.—Advisory Board on Tariff and Taxation.

The Advisory Board on Tariff and Taxation was created under the terms of P.C. 530 of April 7, 1926, for the purpose of advising the Minister of Finance in regard to tariff, taxation and other related matters.

The duties of the Board are to inquire into and hear representations on all matters pertaining to the tariff and other forms of taxation, as may be directed by the Minister of Finance, and to advise the Minister in regard thereto. The Board is under the jurisdiction of the Minister of Finance and holds meetings whenever this appears to be necessary or desirable, and also whenever required by the Minister of Finance. It is authorized to avail itself of the assistance of the officials of the various Departments, while the Minister of Finance, on the recommendation of the Chairman of the Board, may engage competent persons possessing special knowledge to assist the Board in its investigations.

The Tariff Advisory Board does not take the initiative in tariff investigations nor does it receive applications directly from persons interested in tariff investigations, but deals only with applications referred to it by the Minister of Finance. When such application is referred, a date of public hearing is chosen and notification given through the press and also by mail to those on the Board's mailing list. The applicant may present his case in person or by document or may be represented by counsel; briefs in rebuttal may also be presented and examination and cross-examination follow. The evidence presented is then examined and analysed, and a second and sometimes a third public hearing takes place.

In dealing with any application, the Board considers not merely the request of the applicant, but the effect which the granting of that request would have upon related industries and the general tariff structure of the country. Attention is also given to the specific wording of the tariff item, the division or grouping of existing items, the construction of new items and the logical and scientific arrangement of the group or schedule. In dealing with the applications which have come before it, the Board has enjoyed the co-operation of such representative organizations as the Canadian Council of Agriculture, the Canadian Manufacturers' Association, the Consumers' League of Canada and the Canadian Retail Merchants' Association, as well as the press. It has also received assistance from the Trade Commissioners and consuls of other countries.

All hearings take place in the board-room in the West Block of the Parliament Buildings, Ottawa.

CHAPTER XXVI.—SOURCES OF OFFICIAL STATISTICAL AND OTHER INFORMATION RELATIVE TO CANADA.

The chief source of information on the current state of the country is the Dominion Bureau of Statistics, organized as the central statistical bureau for Canada, and described in the first part of this section; a list of its publications, which cover almost the whole field of the national statistics, is appended.

The second part of the section contains a list of the Acts of Parliament administered by the several Departments of the Dominion Government, and the third part a bibliography of the publications of these Departments. This is followed by a bibliography of the publications of Provincial Governments.

Section 1.—The Dominion Bureau of Statistics.[1]

The Dominion Bureau of Statistics was set up by statute in 1918 as a central statistical department for Canada (8-9 Geo. V, c. 43). The Act was a consolidation of all previous statistical legislation and was based on the report of a Commission on Statistics, appointed in 1912, which recommended (a) a series of specific reforms and enlargements in Canadian statistics, and (b) a policy of statistical co-ordination for the Dominion, under central direction. In 1915, following the recommendations in this report, the office of Dominion Statistician was created.

The Bureau has been constituted by the transfer or absorption, by Orders in Council, of the following work and branches:—(1) the Census and Statistics Office (covering the census, and also agriculture, general manufactures and criminal statistics); (2) Fisheries Statistics; (3) Mining Statistics; (4) Forestry Statistics; (5) Dairying and Fruit Statistics; (6) Water and Electric Power Statistics; (7) the Railways and Canals Statistical Branch of the Department of Railways and Canals; (8) the Trade Statistical Branch (exports and imports); (9) Grain Trade Statistics (10) Live Stock Statistics; (11) Prices Statistics; and (12) Employment Statistics. In addition, four new branches were erected, dealing respectively with Public Finance, Internal Trade, Vital Statistics and Education. Subsequently the statistical activities of the Fuel Controller and the Board of Commerce were absorbed. Modifications of the Bankruptcy, Public Health and Railway Acts, and of the regulation *re* franking privileges were also made, with a view to facilitating the collection of statistics.

The Bureau has completed the plans for a unified, nation-wide statistical system, covering every important phase of social and economic activity, and has carried them out to a considerable degree.

The main achievement of the Bureau has been in the organization of the several subjects in correlation with each other in accordance with this general plan, and the consequent establishment of a comprehensive viewpoint of the country as a "going concern". In addition, there has been created what is frequently called a central "thinking office" in statistics, continuously in touch with general conditions and the line of probable developments.

[1]A more complete account of the formation and activities of the Bureau of Statistics will be found on pages 961 to 964 of the 1922-23 Year Book.

The final concept in the organization of the Bureau of Statistics is that of a national laboratory for social and economic research. Statistics are not merely a record of what has been, but are for use in planning what shall be; it is the duty of a statistical bureau to assist directly in the day-to-day problems of administration, as well as to provide their theoretic background. One of the most significant of recent developments in administration is the extent to which statistical organization has been increased as a guide to national policy. Though its usefulness is only begun, the Dominion Bureau of Statistics has laid the foundations for a service comparable with the increasingly important position taken by Canada in the economic and political world.

Publications of the Bureau.—The first annual report of the Dominion Statistician contained a full description of the organization of the Bureau and of its subject matter.[1] The main branches of the Bureau are as follows:—I. Administration; II. Population—Census and Vital Statistics; III. Agricultural Statistics; IV. Fisheries, Furs and Dairy Products; V. Mining, Metallurgical and Chemical; VI. Forestry and Allied Industries; VII. General Manufactures; VIII. External Trade (Imports and Exports); IX. Internal Trade; X. Transportation; XI. Financial Statistics; XII. Statistics of Administration of Justice; XIII. Education Statistics; XIV. General Statistics. The publications of the several Branches are as follows:—

ADMINISTRATION—

Annual Report of the Dominion Statistician.

POPULATION—

Census—

I. Census of Population and Agriculture, 1921.

Bulletins of the Sixth Census of Canada, 1921, as follows:—

(1) Population: *(a)* Population of Canada, 1921, by Provinces, Electoral Districts, Cities, Towns, etc. *(b)* Religions of the People, 1921. *(c)* Origins of the People, 1921. *(d)* Dwellings and Families, 1921. *(e)* Birthplaces of the People, 1921. *(f)* Citizenship of the Foreign-born, 1921. *(g)* Year of Immigration, 1921. *(h)* Ages of the People, 1921. *(i)* Conjugal Condition of the People, 1921. *(j)* Language Spoken, 1921. *(k)* Literacy, 1921. *(l)* School Attendance, 1921. *(m)* Occupations, 1921. Also Bulletins on Population by Provinces as follows: *(a)* Population of Nova Scotia—Electoral Districts, etc. *(b)* Population of Prince Edward Island—Electoral Districts, etc. *(c)* Population of New Brunswick—Electoral Districts, etc. *(d)* Population of Quebec—Electoral Districts, etc. *(e)* Population of Ontario—Electoral Districts, etc. *(f)* Population of Manitoba—Electoral Districts, etc. *(g)* Population of Saskatchewan—Electoral Districts, etc. *(h)* Population of Alberta—Electoral Districts, etc. *(i)* Population of British Columbia—Electoral Districts, etc.

(2) Agriculture, 1921: *(a)* Field Crops of Prairie Provinces, 1921. *(b)* Agriculture of Canada—General Summary. *(c)* Pure-bred Domestic Animals, 1921. *(d)* Agriculture of Nova Scotia, 1921. *(e)* Agriculture of Prince Edward Island, 1921. *(f)* Agriculture of New Brunswick, 1921. *(g)* Agriculture of Quebec, 1921. *(h)* Agriculture of Ontario, 1921. *(i)* Agriculture of Manitoba, 1921. *(j)* Agriculture of Saskatchewan, 1921. *(k)* Agriculture of Alberta, 1921. *(l)* Agriculture of British Columbia, 1921.

Reports of the Sixth Census of Canada, 1921, as follows:—

Vol. I. Introduction—Number, Sex and Distribution—Racial Origins—Religions.
Vol. II. Ages—Conjugal Condition—Birthplace—Birthplace of Parents—Year of Immigration and Naturalization—Language Spoken—Literacy—School Attendance—Blindness and Deaf-Mutism.
Vol. III. Families—Dwellings—Ownership of Homes—Rentals—Earnings.
Vol. IV. Occupations and Employment.
Vol. V. Agriculture. Farm Holdings by size, tenure, value, etc.—Farm Products—Field Crops—Vegetables—Fruits—Forest Products—Live Stock—Animal Products—Statistics of Operators.

[1] This report for the year ended Mar. 31, 1919, is now out of print.

II. Census of Population, etc., 1911.

Reports of the Fifth Census of Canada, 1911: Vol. I. Areas and Population by Provinces, Districts and Subdistricts, with Introduction. Tables I to XV, pp. i-viii, 1-623. Vol. II. Religions, Origins, Birthplace, Citizenship, Literacy and Infirmities by Provinces, Districts and Subdistricts, with Introduction. Tables I-XLVI, pp. i-iv, 1-634. Vol. III. Manufactures for 1910 as enumerated in June, 1911, with Introduction. Tables I-XX, pp. i-xvi, 1-432. Vol. IV. Agriculture, with Introduction. Tables 1-90, I-XXXV, pp. i-xcv, 1-428. Diagrams 5 pp. Vol. V. Forest, Fishery, Fur and Mineral Production, with Introduction. Tables 1-51, I-XXVI, pp. i-l, 1-171. Vol. VI. Occupations of the People, with Introduction. Tables 1-25, I-VI, pp. i-xxxi, 1-469.

Bulletins of the Fifth Census of Canada, 1911: Manufactures of Canada—Dairy Industries—Agriculture, Prince Edward Island—Agriculture, Nova Scotia—Agriculture, New Brunswick—Agriculture, Quebec—Agriculture, Ontario—Agriculture, Manitoba—Agriculture, Saskatchewan—Agriculture, Alberta—Agriculture, British Columbia—Religions—Origins of the People—Birthplace of the People—Educational Status—Mineral Production—Infirmities—Ages—School Attendance.

Special Report of the Foreign-born Population. (Abstracted from the Records of the Fifth Census of Canada, June, 1911; 23 Tables, 62 pp., 1915.)

III. Census of Population and Agriculture of the Prairie Provinces, 1926.

Vol. I.—Population.

Vol. II.—Agriculture.

Preliminary Bulletins, as follows: (a) Population of Manitoba—Electoral Districts, etc. *(b)* Population of Saskatchewan—Electoral Districts, etc. *(c)* Population of Alberta—Electoral Districts, etc. *(d)* Animals on Farms in the Prairie Provinces, 1926. *(e)* Farm Lands and Crops in the Prairie Provinces, 1926.

IV. Census of Population and Agriculture of the Prairie Provinces, 1916.

Report of the Census of Population and Agriculture of the Prairie Provinces, 1916. Tables 1-54, I-XXVI, pp. i-lxiv, 1-356.

V. Intercensal Estimates of Population.

Births, Deaths and Marriages—

VI. Vital Statistics.

Annual Report of Vital Statistics of Canada by provinces and municipalities.
Preliminary Annual Report of Vital Statistics of Canada.
Monthly Report of Births, Marriages and Deaths, by provinces.
Report of Conference on Vital Statistics, held June 19–20, 1918, pp. 1–48.

PRODUCTION—

I. General Summary of Production.

Including and differentiating (gross and net) (1) Primary Production (Agriculture, Fishing, Furs, Forestry and Mining), and (2) Secondary Production, or General Manufactures.

II. Agriculture. (See also under heading "Census" above).

(1) *Agricultural Production.*

(a) Monthly Bulletin of Agricultural Statistics. (Contains monthly reports on agricultural conditions, prices, weather, etc.—preliminary, provisional and final estimates of areas, yields, quality and value of field crops—wages of farm help—numbers and values of farm live stock, poultry, etc.—fruit statistics—stocks of grain—annual summary of value of agricultural production—international agricultural statistics.) (b) Canadian Crop Reports issued according to a fixed schedule, as follows: May 10—Winter Killing, Condition of Fall Wheat and Rye, Spring Seeding, etc.; June 11—Condition of Field Crops; July 4—Telegraphic Crop Report; July 10—Preliminary Estimate of Areas Sown and Condition on June 30; Aug. 3—Telegraphic Crop Report; Aug. 11—Preliminary Estimate of Yield of Fall Wheat, Fall Rye, Hay and Clover, Condition of Field Crops, July 31; Sept. 4—Telegraphic Crop Report; Sept. 11—Preliminary Estimate of Grain Yields and Forecast of Late Sown Crops; Oct. 10—Quality of Cereal Crops and Condition of Root and Fodder Crops; Nov. 12—Provisional Estimate of Yield of Grain Crops; Nov. 15—Yield of Root and Fodder Crops; Dec. 13—Preliminary Estimate of Value of Field Crops; Jan. 23—Final Estimates of Area, Yield, Quality and Value of Field Crops; Feb. 21—Wages of Farm Help, Farm Values, etc.; April 16—Stock on Hand and of Merchantable Quality. (c) Special Crop Reports relating to Crops of India, the Argentine and other countries, from information received direct by cable. (d) Report on Agricultural Statistics, Canada, by countries and crop districts. (e) Handbook for the Use of Crop Correspondents, with Selection of Annual Agricultural Statistics. (f) Canadian Trade in Farm Products, (reprinted from the Monthly Bulletin of Agricultural Statistics).

(2) *Grain.*
(a) Annual Report on the Grain Trade of Canada; (b) Canadian Grain Statistics Weekly; (c) Monthly Report on Mill Grind; (d) Special Historical Report on Flour Milling Industry, 1905–1923; (e) Cost of Grain Production, 1923.

(3) *Live Stock, etc.*
(a) Annual Report on Live Stock and Animal Products; (b) Monthly Report of Cold Storage Holdings, (preliminary, issued on the 10th of the month, and final, issued on the 12th of the month); (c) Summary of Cold Storage Holdings during the calendar year; (d) Estimated Consumption of Meat, Dairy Products, Poultry and Eggs in Canada.

(4) *Other.*
(a) Summary of Sugar Statistics for the calendar year; (b) Monthly Report of Visible Supply, Movement of Raw and Refined Sugar, with supplementary statements of exports and imports; (c) Annual Statistics of Fruit and Floriculture.

III. Furs.
Annual Report on Fur Farms.
Annual Report on the Production of Raw Furs (wild-life).

IV. Fisheries.
Annual Report on Fisheries Statistics.
Advance Summaries of Fish caught, marketed and prepared, by districts.

V. Forestry.
Annual summary of the value, etc., of forest production. (Covers operations in the wood for saw-mills, shingle mills, pulp and paper mills, etc., production of mining timber; production of poles and cross ties, and farm production (decennial) of firewood, posts, etc.)
(See also Reports on Manufactures of Forestry Products listed under "Manufactures," Section VII, subsection (5) below.)

VI. Mineral Production: (Mining and Metallurgy).

(1) *General.*
(a) Annual Report on the Mineral Production of Canada; (b) Preliminary Reports (semi-annual) on the Mineral Production of Canada; (c) Advance Official Estimates of Mineral Production in Canada (mimeographed and semi-annual).

(2) *Coal.*
(a) Annual Report on Coal Statistics for Canada; (b) Preliminary Annual Report on Coal Statistics for Canada; (c) Monthly Summary Report on Coal and Coke Statistics for Canada; (d) Quarterly Report on Coal and Coke Statistics for Canada.

(3) *Metals.*
Annual Bulletins on the following: (a) Arsenic; (b) Cobalt; (c) Copper; (d) Gold; (e) Lead; (f) Nickel; (g) Metals of the Platinum Group; (h) Silver; (i) Zinc; (j) Miscellaneous Metals, including Aluminium, Antimony, Chromite, Iron Ore, Manganese, Mercury, Molybdenum, Tin, Tungsten.

(4) *Non-Metallic Minerals.*
Annual Bulletins on the following: (a) Asbestos; (b) Coal; (c) Feldspar; (d) Gypsum; (e) Iron Oxides; (f) Mica; (g) Natural Gas; (h) Petroleum; (i) Quartz; (j) Salt; (k) Talc and Soapstone; (l) Miscellaneous Non-Metallic Minerals, including: Actinolite, Barytes, Corundum, Fluorspar, Graphite, Grindstones, Magnesite, Magnesium Sulphate, Mineral Waters, Natro-alunite, Peat, Phosphate, Pyrites, Sodium Carbonate, Sodium Sulphate, Tripolite.

(5) *Structural Materials.*
Annual Bulletins on the following: (a) Cement; (b) Clay and Clay Products; (c) Lime; (d) Sand and Gravel; (e) Stone.

(6) *Mining Industries.*
Annual Summary Bulletins, as follows: (a) Gold Mining Industry (including Alluvial-Gold Mining, Auriferous Quartz Mining, and Copper-Gold-Silver Mining; (b) Silver; Cobalt and Silver-Lead-Zinc Mining Industry; (c) Nickel-Copper Mining Industry; (d) Miscellaneous Metal Mining Industries; (e) Non-Ferrous Smelting and Refining Industry; (f) Coal Mining, Coke, Natural Gas, Peat and Petroleum Industries; (g) Miscellaneous Non-Metal Mining Industries; (h) Clay Products and Other Structural Materials Industries.

(7) *Provincial Reviews.*
Annual Summary Bulletins showing Mineral Production for (a) Nova Scotia; (b) New Brunswick; (c) Quebec; (d) Ontario; (e) Manitoba; (f) Saskatchewan; (g) Alberta; (h) British Columbia; (i) Yukon.
(See also Reports on Iron and Steel and their Products, Manufactures of Non-Ferrous Metals, and Chemicals and Allied Products, listed under "Manufactures", Section VII, subsections (6), (7), (8) and (9) below).

VII. Manufactures.

(1) General Summary, by provinces and leading cities—(industrial groups classified by component materials, purpose, etc., of products—comparative statistics).

(2) *Manufacture based on Vegetable Products.*
Annual Bulletins as follows: (a) The Canned Foods Industry; (b) Coffee and Spices; (c) Cocoa and Chocolate; (d) Fruit and Vegetable Preparation, (including canning, evaporating and preserving); (e) Pickles, Sauces, Vinegar and Cider; (f) Flour and Grist Mill Products (See also under heading "Agriculture"); (g) Bread and Other Bakery Products; (h) Biscuit and Confectionery; (i) Macaroni and Vermicelli; (j) Liquors, Distilled; (k) Liquors, Malt; (l) Liquors, Vinous; (m) Rubber Goods; and Rubber boots and shoes; (n) Starch and Glucose; (o) Sugar Refineries; (p) Tobacco Products; (q) Linseed Oil and Oil Cake.

(3) *Animal Products and their Manufactures.*
Annual Reports and Bulletins as follows: (a) Dairy Products (preliminary and final exports); (b) Slaughtering and Meatpacking and allied Industries; (c) Fisheries Statistics (preliminary summaries for Canada and for each Province, and general final report); (d) Leather Tanneries; (e) Harness and Saddlery, Leather Belting, Trunks and Valises, Miscellaneous Leather Goods; (f) Leather Boots and Shoes; Leather Boot and Shoe Findings; (g) Leather Gloves and Mitts; (h) Fur Goods, Fur Dressing; (i) Monthly Report on Boot and Shoe Production.
(See also reports on Live Stock, etc., listed under "Agriculture".)

(4) *Textile and Allied Industries.*
Annual Bulletins as follows: (a) Cotton Textiles (cloth, yarn, thread, and waste); Woollen Textiles (cloth, yarn, waste, carpets, etc., and woollen goods, n.e.s.); (c) The Silk Industry; (d) Men's Factory Clothing; (e) Women's Factory Clothing; (f) Men's Furnishing Goods; (g) Hats and Caps; (h) Hosiery and Knit Goods; (i) Oiled and Waterproof Clothing; (j) The Corset Industry; (k) Cordage, Rope and Twine; (l) Cotton and Jute Bags.

(5) *Manufactures of Forestry Products.*
Annual Reports and Bulletins as follows: (a) The Lumber Industry (preliminary and final); (b) The Pulp and Paper Industry (preliminary and final); (c) The Printing Trades (including printing and publishing, printing and bookbinding, lithographing and engraving, stereotyping and electrotyping, and blue prints); (d) Paper Products Industries (including paper boxes and bags, building and roofing paper, stationery envelopes, wallpaper, all other paper goods); (e) The Sash, Door and Planing Mill Industry; (f) The Furniture Industry; (g) The Box, Basket and Crate Industry; (h) The Carriage and Wagon Industry (including carriage and wagon factories and factories manufacturing carriage and wagon materials); (i) The Cooperage Industry; (j) The Coffin and Casket Industry; (k) The Boatbuilding Industry; (l) The Sporting Goods Industry; (m) The Manufacture of Handles, Spools, and Wood-turning; (n) The Manufacture of Lasts, Trees and Shoe Findings; (o) The Manufacture of Woodenware; (p) The Manufacture of Excelsior; (q) Miscellaneous Wood-using Industries (including beekeepers' and poultrymen's supplies, wooden piping, children's toys, wooden pumps, baby carriages and sleighs, wooden rules, and spinning wheels).

(6) *Iron and Steel and their Products.*
(a) General Report (preliminary and final). Annual Bulletins as follows: (b) The Primary Iron and Steel Industry; (c) The Castings and Forgings Industry; (d) The Agricultural Implements Industry; (e) The Boilers, Engines and Tanks Industry; (f) The Machinery Industry; (g) Automobile Statistics for Canada (including production, trade, and registrations); (h) The Automobile Parts and Accessories Industry; (i) The Wire and Wire Goods Industry; (j) Wire Nails; (k) Sheet Metal Products Industry; (l) The Hardware and Tools Industry; (m) Miscellaneous Iron and Steel Products Industry. Monthly Reports as follows: (n) Iron and Steel Production; (o) Automobile Statistics.

(7) *Manufactures of Non-Ferrous Metals.*
(a) General Report (preliminary and final). Annual Bulletins as follows: (b) The Aluminium Products Industry; (c) The Brass and Copper Products Industry; (d) Canada's White Metal Alloy Industry (Lead, Tin and Zinc Products); (e) The Precious Metals Products Industry; (f) Electrical Apparatus and Supplies Industry; (g) The Miscellaneous Non-Ferrous Metal Products Industry. Special Bulletins as follows:—(h) Radio Apparatus in Canada; (i) Batteries.

(8) *Manufactures of the Non-Metallic Minerals.*
(a) General Report (preliminary and final). Annual Bulletins as follows: (b) The Aerated Waters Industry; (c) Manufactures of Asbestos and Allied Products; (d) The Cement Products Industry; (e) The Sand-Lime Brick Industry; (f) Coke and By-Products Industry; (g) The Glass Industry; (h) The Illuminating and Fuel Gas Industry; (i) The Imported-Clay Products Industry; (j) The Monumental and Ornamental Stone Industry; (k) The Petroleum Products Industry; (l) Manufactures of Miscellaneous Non-Metallic Minerals (including artificial abrasives, abrasive products, artificial graphite and electrodes, gypsum products, mica products). Special Bulletins as follows: (m) Ammonium Sulphate; (n) Domestic Consumption of Coke in Canada; (o) Monthly Report on Coke Statistics.

VII. Manufactures—concluded.

(9) *Chemicals and Allied Products.*

(a) General Report (preliminary and final). Annual Bulletins as follows: (b) The Acids, Alkalies, Salts and Compressed Gases Industry; (c) Coal Tar and its Products Industry; (d) The Explosives, Ammunition, Fireworks and Matches Industry; (e) The Fertilizer Industry; (f) The Medicinal and Pharmaceutical Preparations Industry; (g) The Paint, Pigment and Varnish Industry; (h) The Soaps, Washing Compounds and Toilet Preparations Industry; (i) The Inks, Dyes and Colours Industry; (j) The Wood Distillates and Wood Extracts Industry; (k) Miscellaneous Chemical Industries (including adhesives, baking powder, boiler compounds, plastic products, flavouring extracts, insecticides, polishes and dressings, sweeping compounds, etc.). Special Bulletins as follows: (l) Sulphuric Acids; (m) The Fertilizer Trade.

(10) *Miscellaneous Manufactures.*

Annual Bulletins as follows: (a) Brooms, Brushes and Mops; (b) Musical Instruments and Materials (including pianos, organs, phonographs, and musical instrument materials and parts); (c) The Button Industry; (d) Mattresses and Springs; (e) Dyeing, Cleaning and Laundry Work.

N.B.—For Statistics of Water-Power and Central Electric Stations, see under heading "Transportation, Communications and Public Utilities".

VIII. Construction.—(a) The Building and General Construction Industry; (b) Railway, Telephone and Telegraph—Construction, Maintenance of Way and Repairs; (c) Government and Municipal Construction; (d) The Bridgebuilding Industry; (e) The Shipbuilding Industry; (f) Building Permits—Monthly Record.

EXTERNAL TRADE (IMPORTS AND EXPORTS)—

(1) Annual Report of the Trade of Canada, for the fiscal year ended March 31 (showing summary historical tables, analyses of current trends, detailed tables by items, group analyses according to component material, origin and degree of manufacture, and purpose, and comparisons of the volume of trade).
(2) Condensed Preliminary Report of the Trade of Canada for the fiscal year ended March 31.
(3) Annual Report of the Trade of Canada for the Calendar Year.
(4) Advance Preliminary Statement regarding the Trade of Canada during the Calendar Year.
(5) Quarterly Report of the Trade of Canada (showing Statistics of imports and exports by months).
(6) Monthly Bulletins on Trade Statistics as follows: *General.*—(a) Abstract of Imports, Exports, and Duty Collected by Latest Month, Accrued Period, and Latest 12 Months; (b) Summary of Trade by Countries and Principal Commodities, Latest Month and 12 Months; (c) Summary of Trade with United Kingdom, Principal Commodities, Latest Month and 12 Months. (d) Summary of Trade with the United States, Principal Commodities, Latest Month and 12 Months. *Special.*—(e) Imports and Exports of Asbestos; (f) Imports and Exports of Footwear (except Rubber); (g) Summary, Exports of Grain and Flour; (h) Exports of Lumber; (i) Imports of lumber; (j) Exports of Meats and Lard; (k) Imports of Meats and Lard; (l) Exports of Milk, Milk Products and Eggs; (m) Imports of Milk, Milk Products and Eggs; (n) Exports of Non-Ferrous Ores and Smelter Products; (o) Imports of Non-Ferrous Ores and Smelter Products; (p) Exports of Paints and Varnishes; (q) Imports of Paints and Varnishes; (r) Exports of Pulp Wood, Wood Pulp and Paper; (s) Exports of Rubber Goods and Insulated Wire; (t) Imports of Rubber Goods; (u) Exports of Vehicles of Iron (Automobiles, Bicycles, Railway Cars, etc.); (v) Imports of Vehicles of Iron (Automobiles, Bicycles, Railway Cars, etc.).

INTERNAL TRADE—

(1) Preliminary Report on the Census of Trading Establishments.
(2) Estimated Balance of International Payments in Canada.
(3) Capital Investments by British and Foreign Countries in Canada, and Capital Investments by Canadians in Other Countries.
(4) *Prices and Price Indexes.*—(a) Annual Report on Prices and Price Indexes; (b) Preliminary Annual Review of Wholesale Prices; (c) Monthly Bulletin on Prices and Price Indexes; (d) Preliminary Monthly Statement relating to Prices and Price Indexes; (e) Monthly Statement relating to Average Yields of Common Stocks; (f) Weekly Bulletin on Weighted Index Numbers of 17 Mining Stocks; (g) Weekly Bulletin on Investors' and Traders' Index Numbers of Security Prices. Special Bulletins as follows: (h) Post War Sugar Prices; (i) Post War Prices of Raw Cotton; (j) Post War Silver Prices; (k) Post War Tin Prices; (l) Post War Copper Prices; (m) Post War Lead Prices; (n) Gasolene Prices; (o) Coffee Prices; (p) Wool Prices; (q) Post War Rubber Prices; (r) Street Car Fares and Index Numbers, 1913–1926; (s) Telephone Rates and Index Numbers, 1927; (t) Rates and Index Numbers of

(4) *Prices and Price Indexes*—concluded.
Hospital Charges in Canada, 1913–1925; (u) Index Numbers and Prices of Manufactured and Natural Fuel Gas Used for Domestic Purposes, 1913–1925; (v) Price Trends and Economic Conditions in Germany, (May, 1927); (w) Price Trends and General Economic Conditions in France, (May, 1927); (x) Price Trends and General Economic Conditions in Great Britain (May, 1927); (y) Wholesale Prices in the British Empire and Foreign Countries, and Exchange Rates in 1925 (with reference to important trade tendencies in the leading countries); (z) Trend of Commodity Prices in Canada, Past and Future.

TRANSPORTATION, COMMUNICATIONS AND PUBLIC UTILITIES—

(1) *Railways and Tramways.*—(a) Annual Report on Railway Statistics; (b) Preliminary Report of Statistics of Steam Railways (annual); (c) Annual Report on Electric Railway Statistics; (d) Monthly Bulletin on Railway Revenues, Expenses, Incomes and Operating Statistics; (e) Summary of Monthly Railway Operating Reports during the Calendar Year; (f) Monthly Statement of Traffic of Railways; (g) Summary of Monthly Railway Traffic Statements for Calendar Year; (h) Weekly Report of Carloads of Revenue Freight. Special Bulletins as follows: (i) Location and Mileage of Railways; (j) Special Report on Canadian National Railways, 1926.
(2) *Express.*—Annual Report on Express Statistics.
(3) *Telegraphs.*—Annual Report on Telegraph Statistics.
(4) *Telephones.*—Annual Report on Telephone Statistics.
(5) *Water Transportation.*—(a) Annual Report on Canal Statistics (preliminary and final); (b) Monthly Report on Canal Statistics; (c) Report of Census of Canadian Registered Ships.
(6) *Electric Stations.*—(a) Annual Report on Central Electric Stations in Canada (preliminary and final); (b) Report on Index numbers of Electric Light Rates.
(7) *Motor Vehicles.*—Annual Report on Motor Vehicle Registrations.

FINANCE—

(1) *Municipal Statistics.*—(a) Annual Municipal Statistics of Urban Municipalities of 5,000 population and over. (b) Annual Municipal Statistics of Urban Municipalities of 1,000 to 5,000 population. (c) Special Bulletins on Assessed Valuations by Provinces, Municipal Bonded Indebtedness, etc.
(2) *Dominion.*—(a) Statistics of the Civil Service of Canada—Annual Report. (b) Statement of Civil Service Personnel and Salaries in the Months of January, 1912–1924.
(3) *Provincial Finance.*—Annual Report.

JUSTICE—

(1) *Criminal Statistics.*—Annual Report, with preliminary abstract, covering convictions, sentences, prison statistics, police statistics, pardons and commutations.
(2) *Juvenile Delinquency.*—Annual Bulletin.

EDUCATION—

(1) Annual Report on Education.
(2) Annual Report on Business Colleges.
(3) Annual Report on Private Elementary and Secondary Schools.
(4) Report on Universities and Colleges.
(5) Report on Playgrounds, etc., in Canada.
(6) Historical Statistical Survey of Education in Canada.
(7) Library Statistics of Canada.
(8) Report of Conference on Education Statistics, held October 27-28, 1920.
(9) Illiteracy and School Attendance in Canada—A study of the Census of 1921 with Supplementary Data.

GENERAL—

(1) *National Wealth and Income.*—(a) Estimates of the National Wealth of Canada, by Provinces, Industries, etc. (b) Summary of Income Tax Receipts.
(2) *Employment.*—Monthly and Annual Reports on Employment, with Index Numbers of Employment by Localities and Industries.
(3) *Commercial Failures.*—Monthly and Annual Reports.
(4) *Bank Debits.*—Monthly and Annual Reports of Bank Debits to Individual Accounts at the Clearing House Centres of Canada.
(5) *Business Statistics.*—The Monthly Review of Business Statistics (a statistical summary, with charts and text, of current economic conditions in Canada).
(6) *Divorce.*—Annual Report.
(7) *The Canada Year Book.*—The Official Statistical Annual of the Physiography, Resources, History, Institutions and Social and Economic Conditions of the Dominion, with a Statistical Summary of the Progress of Canada, maps, diagrams, etc.

7. The Canada Year Book.—concluded.

Contents: Chapter I, Physical Characteristics of Canada (Geographical Features; Geological Formation; Seismology; Flora; Faunas; Natural Resources; Climate and Meteorology). Chapter II, History and Chronology. Chapter III, Constitution and Government (Constitution and General Government of Canada; Provincial and Local Government in Canada; Parliamentary Representation in Canada). Chapter IV, Population (Growth and Distribution). Chapter V, Vital Statistics. Chapter VI, Immigration. Chapter VII, Survey of Production. Chapter VIII, Agriculture. Chapter IX, Forestry. Chapter X, Fur Trade. Chapter XI, Fisheries. Chapter XII, Mines and Minerals. Chapter XIII, Water Powers. Chapter XIV, Manufactures. Chapter XV, Construction. Chapter XVI, External Trade. Chapter XVII, Internal Trade. Chapter XVIII, Transportation and Communications (Government Control over Transportation and Communications; Steam Railways; Electric Railways; Express Companies; Roads and Highways; Motor Vehicles, Air Navigation; Canals; Shipping and Navigation; Telegraphs; Telephones; Post Office). Chapter XIX, Labour and Wages. Chapter XX, Prices. Chapter XXI, Public Finance (Dominion Public Finance; Provincial Public Finance; Municipal Public Finance; National Wealth and Income). Chapter XXII, Private Finance (Currency and Banking ; Loan and Trust Companies; Insurance; Commercial Failures). Chapter XXIII, Education. Chapter XXIV, Public Health and Benevolence. Chapter XXV, Miscellaneous Administration (Public Lands; National Defence; Public Works, etc.). Chapter XXVI, Sources of Official Statistical and Other Information Relative to Canada. Chapter XXVII, The Annual Register (Dominion Legislation; Provincial Legislation; Principal Events of the Year; Extracts from the Canada Gazette *re* Official Appointments, Commissions, etc.). Appendix.

(Issues of the Canada Year Book for 1921, 1924, and 1926 are available.)

Section 2.—Acts Administered by Dominion Departments.

List of the Principal Acts of Parliament administered by Departments of the Government of the Dominion of Canada, as compiled from information supplied by the respective Departments.

(Numbers within parentheses, unless otherwise indicated, denote chapters of the Revised Statutes of Canada, 1927—R.S.C., 1927.)

Agriculture.—Experimental Farm Stations (61); Fruit (80); Dairy Industry (45); Cold Storage (25); Seeds (185); Feeding Stuffs (67); Live Stock Pedigree (121); Live Stock and Live Stock Products (120); Animal Contagious Diseases (6); Meat and Canned Foods (77); Destructive Insect and Pest (47); Fertilizers (69); Root Vegetables (181); Section 235, Criminal Code (Race Track Betting) (36); Inspection and Sale (100).

Auditor-General.—Consolidated Revenue and Audit (178).

Civil Service Commission.—Civil Service (22).

External Affairs.—The functions and duties of this Department are defined by the Department of External Affairs Act (65) and by the International Boundary Waters Treaty Act, 1911 (1-2 Geo. V, c. 28), as amended by the statute of April 3, 1914 (4 Geo. V, c 5).

Finance.—Appropriation; Bank (12); Bills of Exchange (16); Board of Audit (10); Canadian Farm Loan (66); Civil Service Superannuation (24); Consolidated Revenue and Audit (178); Contingencies (31); Currency (40); Dept. of Finance and Treasury Board (71); Dominion Notes (41); Federal District Commission (Stats. 1927, c. 55); Finance (70); Interest (102); Ottawa Mint (134); Penny Bank (13); Provincial Subsidies (192); Quebec Savings Banks (14); Savings Bank (15); Special War Revenue (179) (in part).

National Health.—Department of Pensions and National Health (Part II) (39); Quarantine (168); Public Works Health (91); Leprosy (119); Canada Shipping (Sick and Distressed Mariners) (186); Proprietary or Patent Medicine (151); Opium and Narcotic Drug (144); Food and Drugs (including Maple Act and Honey Act) (76).

Immigration.—The Immigration Act and Regulations, 1910 (93) with amendments (94); the Chinese Immigration Act and Regulations, 1923 (95).

Indian Affairs.—Indian (98).

Insurance.—Insurance (101); Loan Companies (28); Trust Companies (29).

Interior.—Department of the Interior (103); Dominion Lands (113); Public Lands Grants (114); Dominion Lands Survey (117); Forest Reserves and Parks (78); Irrigation (104); Railway Belt (116); Railway Belt Water (211); Yukon (215); Yukon Placer Mining (216); Yukon Quartz Mining (217); Dominion Water Power (210); Land Titles (118); North west Game (141); Northwest Territories (142); Ordnance and Admiralty Lands (115); Reclamation (175); Seed Grain (87); Seed Grain Sureties (88); Migratory Birds Convention (130); Manitoba Supplementary Provisions (124); Saskatchewan and Alberta Roads (180).

Justice.—Department of Justice (106); Solicitor-General's (107); Northwest Territories (142); Yukon (215); Royal Canadian Mounted Police (160); Judges (105); Supreme Court (35); Exchequer Court (34); Admiralty (33); Petition of Right (158); Criminal Code (36); Penitentiary (154); Prisons and Reformatories (163); Identification of Criminals (38); Ticket of Leave (197); Fugitive Offenders (81); Extradition (37); Juvenile Delinquents (108); Bankruptcy (11).

King's Printer and Controller of Stationery.—Public Printing and Stationery (162); The Publication of Statutes (2).

Labour.—Conciliation and Labour (110); Industrial Disputes Investigation (112); Fair Wages Policy of the Government of Canada as set forth in an Order in Council of June 7 1922, amended by order in council of April 9, 1924; Employment Offices Co-ordination (57); Technical Education (193); Government Annuities (7); Combines Investigation (26); Old Age Pensions (156); White Phosphorus Matches (128).

Marine.—Government Harbours, Piers and Breakwaters (89); Shipping of Live Stock (122); Marine and Fisheries Department (125); Maritime Conventions (126); Navigable Waters' Protection (140); Quebec Harbour and River Police (169); Canada Shipping (186); Radiotelegraph (195); Government Vessels Discipline (203); U.S. Wreckers' (214); Belleville Harbour Commission (1889, c. 35); Halifax Harbour Commission (1927, c. 48); Hamilton Harbour Commission (1912, c. 98); Montreal Harbour Commission (1894, c. 48; 1909, c. 24; 1912, c 35; 1913, c. 32; 1914, c. 42); North Sydney Harbour Commission (1914, c. 16); North Fraser Harbour Commission (1913, c. 162); New Westminster Harbour Commission (1913, c. 158); Pictou, N.S. Harbour Commission (1920, c. 63); Quebec Harbour Commission (1899, c. 34) (1905, c. 33); Saint John, N.B., Harbour Commission (1927, c. 67); Three Rivers, Que., Harbour Commission (1923, c. 71); Trenton, Ont., Harbour Commission (1922, c. 50); Toronto Harbour Commission (1911, c. 26); Vancouver Harbour Commission (1913, c. 54); Winnipeg and St. Boniface Harbour Commission (1912, c. 55). Chicoutimi Harbour Commission (1926, c. 6).

Mines.—Geology and Mines (83); Explosives (62); The Domestic Fuel (17 Geo. V, c. 52).

National Defence.—Department of National Defence Act (136); Naval Service Act (139); Naval Discipline Act; Militia Act (132); Militia Pension Act (133); Royal Military College Act (131); Sec. 85 and 86 Criminal Code; Army Act; Regimental Debts Act; Aeronautic Act 1919 (3); Air Force Act.

National Revenue.—Customs Tariff (44); Customs (42); Canada Shipping (in part) (186); Animal Contagious Diseases (in part) (6); Destructive Insect and Pest (in part) (47); Export (63); Copyright (in part) (32); Petroleum and Naphtha (159); Excise (60); Special War Revenue 1915 (179); Income War Tax 1917 (197); Agricultural Pests Control Act (in part) (5); Customs and Fisheries Protection (in part) (43); Explosives (in part) (62).

Post Office.—Post Office (161); Pacific Cable; Parcel Post; Special War Revenue (in part) (179).

Public Works.—Public Works (166); Government Harbours and Piers, s. 5 (89); Navigable Waters Protection (140); Telegraphs (194); Dry Dock Subsidies (191); an Act to authorize the payment of a subsidy to the Collingwood Shipbuilding Co. Ltd. (2 Geo. V, 1912, c. 17); Government Works Toll Act (167); an Act to incorporate the National Gallery of Canada (3–4 Geo. V, 1913, c. 33); an Act to authorize the payment of a subsidy to the Western Dry Dock and Shipbuilding Co., Ltd., (3-4 Geo. V, 1913, c. 57); Act to confirm an agreement between His Majesty the King and the Corporation of the City of Ottawa (10–11 Geo. V, c 15); Ferries Act (68), transferred by Order in Council, June 3, 1918, for administration by Public Works Department.

Railways and Canals.—Department of Railways and Canals (171); Government Railways (173); Intercolonial and P.E.I. Railway Employee's Provident Fund (6–7 Edw. VII, c. 22 and amending Acts); Acts to amend the National Transcontinental Railway Act (4-5 Geo. V, c. 43 and 5 Geo. V, c. 18); Canadian National Railways (172); Canadian National Railway Branch Lines (14–15 Geo. V, cc 14–32; 15–16 Geo V, cc 5, 6 and 7; 17 Geo. V, cc. 12–26); Government Employees Compensation (30); Canadian National Refunding, 1927 (17 Geo. V, c. 27); Grand Trunk Pacific Securities, 1927 (17 Geo V, c. 7); Canadian National Steamships, 1927 (17 Geo. V, c. 29).

The "Railway Act" (Companies) confers certain powers upon the Minister of the Department. In the case of subsidized railways, the authorizing Acts are carried out under the Department, which also has certain jurisdiction where government guarantee has been given.

Secretary of State.—Companies (27); Naturalization (138); Patents (150); Copyright (32); Trade Marks (201); Canadian Temperance (196); Boards of Trade (19); Ticket of Leave (197); Trade Unions (202); Treaties of Peace.

Trade and Commerce.—Canada Grain (86); Electricity and Fluid Exportation (54); Electricity Inspection (55); Electrical Units (56); Gold and Silver Marking (84); Amendment, Gold and Silver Marking (18–19 Geo. V, c. 40); Gas Inspection (82); Statistics (190); Weights and Measures (212); Inland Water Freight Rates (208); Hemp Bounty (1913, c. 50); Copper Bars or Rods Bounty (1923, c. 40).

Section 3.—Publications of Dominion Departments.

List of Principal Publications of the Departments of the Government of the Dominion of Canada, as compiled from information supplied by the respective Departments.

Agriculture.—Annual Reports of the Minister, of the Experimental Farms and Stations, of the Veterinary Director-General and of the Entomological Branch. Bulletins, pamphlets and circulars of the Experimental Farms Branch on a great variety of agricultural subjects, including publications of the following divisions:— Field Husbandry; Animal Husbandry; Horticulture; Cereal; Chemistry; Forage Plants; Botanical; Poultry; Tobacco; Economic Fibre; Bacteriology; Bees, and Illustration Stations. "Seasonable Hints" is issued three times a year. Bulletins of the Dairy and Cold Storage Branch relating to the dairying and cold storage industries in Canada, the making of butter and cheese, dairying experiments, co-operation, etc. Reports, bulletins, pamphlets, etc., of the Live Stock Branch on cattle, sheep, swine, poultry, marketing of eggs, wool, etc. Bulletins of the Health of Animals Branch, with regulations as to contagious abortion; rabies; sheep scab; actinomycosis; anthrax; glanders; hog cholera; maladie du coït; tuberculosis; foot-and-mouth disease; quarantine; and meat inspection. Bulletins and reports of the Seed Branch as to seed-testing, the production and use of seed grains, the Seed Control Act, the Feeding Stuffs Act and the Fertilizers Act. Bulletins and circulars of the Entomological Branch and instructions to importers of nursery stock. Reports of the Canadian Seed Growers' Association. Fodder and Pasture Plants, by George H. Clark, B.S.A., and M. Oscar Malte, Ph.D., 143 pages, 27 plates, price 50 cents. Bulletin on the Maple Sugar Industry.

Dominion Experimental Farms.—(1) Report of the Director (contains summary of reports of Divisions, Farms and Stations); (2) Animal Husbandry Division; (3) Bee Division; (4) Botanical Division; (5) Chemistry Division; (6) Field Husbandry Division; (7) Illustration Stations Division; (8) Poultry Division; (9) Tobacco Division; (10) Horticultural Division; (11) Cereal Division; (12) Forage Crops Division; (13) Economic Fibre Division and (14) Division of Bacteriology. *Experimental Farms and Stations Reports.* —Agassiz, B.C.; Indian Head, Sask.; Nappan, N.S.; Charlottetown, P.E.I.; Invermere, B.C.; Sidney, B.C.; Brandon, Man.; Morden, Man.; Cap Rouge, Que.; Scott, Sask.; Swift Current, Sask.; Kapuskasing, Ont.; La Ferme, Que.; Kentville, N.S.; Lennoxville, Que.; Ste. Anne de la Pocatière, Que.; Rosthern, Sask.; Lethbridge, Alta.; Lacombe, Alta.; Summerland, B.C.; Farnham, Que.; Fredericton, N.B.; Experimental Sub-Stations —Beaverlodge, Alta.; Fort Vermilion, Alta.; Fort Resolution. N.W.T.; Salmon Arm, B.C.; Fort Providence, N.W.T.; Betsiamites, Que.; and Fort Smith, N.W.T.

The pamphlet entitled "List of Publications" contains a list of the publications of the Department, numbering more than 400. These publications include, in addition to the reports, bulletins and pamphlets on field crops, live stock, dairying, orchard and garden insects and plant diseases, poultry and miscellaneous topics. With few exceptions, the publications of the Department are free on application to its Publications Branch.

Auditor-General.—Annual Report.

Board of Railway Commissioners for Canada.—Annual Report. Pamphlet containing Judgments, Orders, Regulations and Rulings, issued fortnightly.

Civil Service Commission.—Annual Report, including lists of permanent appointments, promotions and transfers; Classification of the Civil Service of Canada, revised up to Sept. 1, 1927; Regulations of the Civil Service Commission; General Information respecting Civil Service examinations.

Dominion Fuel Board.—The Dominion Fuel Board was created in 1922 primarily to instigate a thorough study of the underlying causes of recurring fuel shortages in Canada and of the methods by which they may be counteracted. It is composed of officers of the Departments of Mines and of the Interior, and the co-operation of both Departments is given to the Board in its investigations. The following reports and publications have been issued:—Interim Report of the Dominion Fuel Board, 1923; Central and District Heating, Possibilities of Application in Canada, by F. A. Combe, 1923; Coke as a Household Fue in Central Canada, by J. L. Landt, 1925; Smoky River Coal Field, by James McEvoy 1925; Why You Should Insulate Your Home, by G. D. Mallory, 1927; Dominion Fue Board Second Progress Report, 1928; Cards bearing instructions on "How to Burn Coke".

Publications of Mines Branch, Department of Mines, in co-operation with Dominion Fuel Board—Coking Experiments on Coals from the Maritime Provinces, by B. F. Haanel and R. E. Gilmore, 1926; Tests of Various Fuels to determine their Relative Heating Efficiency, by E. S. Maloch and C. E. Baltzer, 1927; Instructions for Burning Coal, Coke and Peat, 1927. Domestic Fuel Act and Regulations pertaining thereto, 1927.

External Affairs.—Annual Report.

Finance.—Annual Report on the Public Accounts of the Dominion of Canada. Monthly Statements of the Chartered Banks of Canada. Estimates.

Health.—(1) Sanitation, "Sewage Treatment for Isolated Houses and Small Institutions where Municipal Sewage System is not available". The Little Blue Books:—(2) The Canadian Mother's Book; (3) How to Take Care of the Baby; (4) How to take Care of the Mother; (5) How to take Care of the Children; (6) How to Take Care of the Father and the Family; (7) Beginning our Home in Canada; (8) How to Build our Canadian House; (9) How to Make our Canadian Home; (10) How to Make our Outpost Home in Canada; (11) How to Prevent Accidents and Give First Aid; (12) Canadians Need Milk; (13) How we Cook in Canada; (14) How to Manage Housework in Canada; (15) How to Take Care of Household Waste; (16) Household Cost Accounting in Canada; (17) Sanitation, "Water Supplies" (unabridged edition); (18) Sanitation, "Water Supplies" (homesteader's edition); (20) General Circular of Information concerning Venereal Diseases; (21) Venereal Diseases—Wasserman Test; (22) Venereal Diseases—Microscopical Examination; (23) Venereal Diseases—Diagnosis and Treatment; (24) Information for Men—Syphilis and Gonorrhœa; (25) Information for Young Women about Sex Hygiene; (26) Information for Parents—Teaching of Sexual Hygiene to Children; (27) Prevention of Blindness in Babies; (28) Periodic Medical examinations; (29) Simple Goitre; (30) How to Build sound teeth; (31) What you should know about Tuberculosis; (32) Smallpox and vaccination; (33) Narcotism in Canada; (34) Planning of small community hospitals; (35) Maple Products; (36) Pasteurization of Milk for Small Communities; (37) Report of Maternal Mortality Enquiry; (38) Mother—A little book for women; (39) Mother—A little book for men; (40) Child Welfare Work and Workers in Canada for Children not in their Own Homes.

Immigration and Colonization.—Atlas of Canada, United Kingdom, United States, and French editions. Eastern Canada, United Kingdom, United States, and French editions. Canada West, United Kingdom, United States, and French editions. Farm Opportunities in Canada, United Kingdom, Irish Free State, Danish, French and United States editions. A Manual of Citizenship, English, French, and Dutch editions. Houseworkers in Canada, Vest Pocket Booklet, British and United States and European editions. Map Folder of the World, British and United States editions. Canada and Immigration. Land Settlement, Canada; Where to go for Advice. British Farm Settlement in New Brunswick. Boy Settlement in Canada.

Indian Affairs.—Annual Report. Indian Act, R.S.C., 1927. Schedule of Indian Reserves, 1928. Indian Treaties and Surrenders, Vols. I, II, III.

Insurance.—Quarterly Statement showing List of Licensed Companies. Annual Abstract of Statements of Insurance Companies in Canada (subject to correction). Annual Reports of the Insurance Department, Vol. I (Fire and Miscellaneous), Vol. II (Life Companies and Fraternal Benefit Societies). Annual List of Securities held by Insurance, Trust and Loan Companies in Canada, with Department's Valuation thereof. Abstract of Statements of Loan and Trust Companies in Canada. Annual Report of Loan and Trust Companies incorporated by the Dominion.

Interior.—Annual Report, including Reports from the Dominion Lands, Surveys, Canadian National Parks, Forestry, Water Power and Reclamation, Northwest Territories and Yukon, Natural Resources Intelligence Service, the Dominion Observatories and Accounts Branches. Pamphlets, reports, bulletins, etc., of the respective Branches:—

Canadian National Parks.—Annual Report of the Commissioner; Traffic and Motor Regulations; Banff and District; Through the Heart of the Rockies and Selkirks; Kootenay National Park and the Banff-Windermere Highway; Guide to Jasper Park; The Kicking Horse Trail; Waterton Lakes Park; Prince Albert National Park; Automobile and Livery Tariffs for Yoho and Glacier National Parks; Automobile and Livery Tariffs for Jasper National Park; Map of Mount Revelstoke National Park; Map of Waterton Lakes National Park; Map of Central Part of Jasper National Park; Map of Banff National Park; Map of Yoho National Park; Map of Glacier National Park; Map of Kootenay National Park; Map of Lake Louise and District; Map of Banff and Vicinity. *Migratory Birds Protection*—Migratory Birds Convention Act and Regulations; Bird Houses and their Occupants; Lessons on Bird Protection; Attracting Birds with Food and Water; Birds a National Asset; Producing Eiderdown; Hints for Hunters; Loi et Règlements concernant les Oiseaux Migrateurs; Résumé des Règlements; Maisons d'Oiseaux et leurs Occupants; Leçons concernant la Protection des Oiseaux; L'Art d'attirer les Oiseaux; Les Oiseaux Trésor National Conseils aux Chasseurs; La Production de L'Edredon. *Historic Sites Series No. 1.*—The Lake Erie Cross, French and English; H. S. Series No. 2, Guide to Fort Chambly, French and English; H. S. Series No. 3, Guide to Fort Lennox, French and English ; H. S. Series No. 4, Guide to Fort Anne; No. 6, Sir Alexander Mackenzie's Rock; No. 7, Guide to Fort Wellington.

Dominion Observatory.—Publications of Dominion Observatory. Vol. VIII, No. 1, The Spectroscopic System Theta Ophiuchi, by F. Henroteau, D.Sc.; No. 2, The Location of Epicentres, 1920, by W. W. Doxsee, M.A.; No. 3, The Spectroscopic System Beta Canis Majoris, by F. Henroteau, D.Sc.; No. 4, The Spectroscopic System Sigma Scorpii (Second Paper), by F. Henroteau, D.Sc.; No. 5 Spectroscopic Study of Stars of Classes A and F

by F. Henroteau, D.Sc.; No. 6, Gravity in Northwestern Canada, by A. H. Miller, M.A.; No. 7, Photometry with a 6-inch Doublet, by R. M. Motherwell, M.A.; No. 8, Magnetic Results, 1921–23, by C. A. French, B.A., and R.G. Madill, B.A.; No. 9, Gravity in Western Canada, by A. H. Miller, M.A. Vol. IX, Astrophysics, No. 1, The Cepheid Problem, by F. Henroteau, D.Sc.; No. 2, The Spectroscopic System Sigma Scorpii (Third Paper), by F. Henroteau, D.Sc.; No. 3, A Study of Zeta Geminorum (First Paper) by F. Henroteau, D.Sc.; No. 4, The Spectroscopic System Nu Eridani, by F. Henroteau, D.Sc.; No. 5, A Study of Eta Aquilae (First Paper), by F. Henroteau, D.Sc.; No. 6, The Castor System, by D. A. Barlow, M.A.; No. 7, A Study of Eta Aquilae (Second Paper), by F. Henroteau, D.Sc. and A. Vibert Douglas, Ph.D. (See also Year Books, 1919, pp. 630–631; 1921, pp. 838–839; 1927–28, pp. 1032–1033).

Dominion Astrophysical Observatory.—Vol. 4, No. 1, Three Peculiar Spectra, by J. S. Plaskett; No. 2, Three Long-Period Spectroscopic Binary Stars, by R. K. Young; No. 3, Two A-type Spectroscopic Binaries, by W. E. Harper; No. 4, Graphs for Obtaining the Position Angle and Distance of the Apex, and the Galactic Co-ordinates for any Star, by J. A. Pearce and S. N. Hill; No. 5, The Spectroscopic Orbit of H.R. 5702, and Velocity and Light Curves of 12 Lacertae, by W. H. Christie; No. 6, The Orbits of the Spectroscopic Components of the Two Helium Stars, H.D. 19820 and H.D. 176853, by J. A. Pearce; No. 7, Two A-Type Binaries and the Radial Velocity of 50 Stars, by R. M. Petrie; No. 8, The Spectroscopic Orbit of H.D. 176819 and a Note on H.D. 185936, by P. M. Millman; No. 9, Two Spectroscopic Orbits and Notes on υ Sagittarii, by J. S. Plaskett; No. 10, The Composite Stellar and Nebular Spectrum of Z Andromedae, by H. H. Plaskett; No. 11, The Orbits of A Persei and H.R. 8210, by W. E. Harper. (For earlier publications, see 1927–28 Year Book, p. 1033.)

Dominion Water Power and Reclamation Service.—I. Combined Annual Report of the Dominion Water Power and Reclamation Service from 1923 to 1927. II. Water Power:—Annual Reports of the Dominion Water Power Branch from 1913 to 1923 (the Annual Reports of the Branch previous to 1913 are included in the Annual Report of the Department). *Water Resources Papers.*—I. *Reports of Special or General Interest.*—2, Report on Bow River Power and Storage Investigations, by M. C. Hendry; 3, Report on Power and Storage Investigations, Winnipeg River, by J. T. Johnston; 5 and 11, Preliminary and Final Reports on the Pasquia Reclamation Project, by T. H. Dunn; 6, Report on Cost of Various Sources of Power for Pumping, in connection with the South Saskatchewan Water Supply Diversion Project, by H. E. M. Kensit; 7, Report on the Manitoba Water Powers, by D. L. McLean, S. S. Scovil and J. T. Johnston; 10, General Guide for Compilation of Water Power Reports of Dominion Water Power Branch, prepared by J. T. Johnston; 12, Report on Small Water Powers in Western Canada and discussion of Sources of Power for the Farm, by A. M. Beale; 13; Report on the Coquitlam-Buntzen Hydro-Electric Development, by G. R. G. Conway; 16, Water Powers of Canada, a series of five pamphlets prepared for distribution at the Panama-Pacific Exposition, 1915, by G. R. G. Conway, P. H. Mitchell, H. G. Acres, F. T. Kaelin and K. H. Smith; 17, Canadian Hydraulic Power Development and Electric Power in Canadian Industry, by C. H. Mitchell; 20, Report on the Interests Dependent on Winnipeg River Power, with special reference to the capital invested and the labour employed, by H. E. M. Kensit; 27 and 33, Directories of Central Electric Stations in Canada to Nov. 1, 1922, by J. T. Johnston; 32, Water Resources Index Inventory, by J. T. Johnston; 56, Water Powers of Manitoba, by C. H. Attwood; 60, Water Powers of Canada, by J. T. Johnston. II. *Surface Water Supply Reports.*—(A) Atlantic Drainage south of St. Lawrence river, including Nova Scotia, New Brunswick, Prince Edward Island and south-eastern Quebec; 29, 37, and 52, from 1919 to the climatic year ending Sept. 30, 1926, by K. H. Smith; (B) St. Lawrence and Southern Hudson Bay Drainage in Quebec; 41, and 48 from 1922 to climatic year ending Sept. 30, 1925, by L. G. Denis; (C) St. Lawrence and southern Hudson Bay Drainage in Ontario; 28, 34, 38, 42 and 49 from 1919 to the climatic year ending Sept. 30, 1925, by S. S. Scovil; (D) Arctic and western Hudson Bay Drainage (and Mississippi Drainage in Canada) in Alberta, Saskatchewan, Manitoba, extreme western Ontario, and Northwest Territories; 4, 19, 22, 24, 26, 31, 36, 40,44, 46, 50 and 54, from 1912 to the climatic year ending Sept. 30, 1926, by M. C. Hendry (to 1918) and C. H. Attwood and A. L. Ford (previous to 1919–20, surveys in Alberta and Saskatchewan were carried on and published by the Reclamation Service, Department of the Interior); (E) Pacific Drainage in British Columbia and the Yukon Territory; 1, 8, 14, 18, 21, 23, 25, 30, 35, 39, 43, 47, 51 and 53, from 1911 to the climatic year ending Sept. 30, 1926, by P. A. Carson (to 1912), R. G. Swan (to 1923) and C. E. Webb. III. Reclamation:—Irrigation Reports, 1912 to 1918–19; Annual Reports of the Reclamation Service, 1919–20 to 1922–23; Reports of the Western Canada Irrigation Association Conventions (1st to 11th Conventions); Report of the International Irrigation Congress, 1914. *Bulletins.*—(1) Irrigation in Alberta and Saskatchewan; (2) Alfalfa Culture; (3) Climatic and Soil Conditions in C. P. Ry. Co's Irrigation Block; (4) Duty of Water Experiment and Farm Demonstration Work; (5) Farm Water Supply; (6) Irrigation Practice and Water Requirements for Crops in Alberta. *Pamphlets.*—"Practical Information for Beginners in Irrigation", by W. H. Snelson. Address by S. G. Porter on "Practical Operation of Irrigation Works". Address by Dr. Rutherford

on "Interdependence of Farm and City". Addresses by Don. H. Bark on "The Actual Problem that Confronts the Irrigator", "Practical Irrigation Hints for Alberta" and "Alfalfa Growing".

Forestry.—Annual Report of the Director of Forestry, 1917-18-19-21-22-23-24-25-26-27-28. *Bulletins.*—(1) Tree-Planting on the Prairies; (49) Treated Wood-block Paving; (53) Timber Conditions in the Smoky River Valley and Grande Prairie Country; (59) Canadian Woods for Structural Timbers; (61) Native Trees of Canada; (66) Utilization of Waste Sulphite Liquor; (67) Creosote Treatment of Jack Pine and Eastern Hemlock for Cross-ties; (69) The Care of the Woodlot; (71) Canadian Sitka Spruce: Its Mechanical and Physical Properties; (74) Distillation of Hardwoods in Canada; (75) Wood-using Industries of Ontario; (76) Pulping Qualities of Fibre-killed Wood; (77) Statistical Methods in Forest-investigative Work; (78) Some Commercial Softwoods of British Columbia; (79) Taper as a Factor in the Measurement of Standing Timber. *Circulars.*—(13) The Cascara Tree in British Columbia; (16) Preservative Treatment of Fence-posts; (17) Forest-investigative Work of the Dominion Forest Service; (18) The Kiln-drying of British Columbia Softwoods; (20) List of Form-class and Miscellaneous Volume Tables; (22) Report of Tests of the Relative Strength of Green-cut and Fire-killed Western Cedar Pole Timber; (23) Absorption of Moisture by Kiln-dried Lumber; (24 Strength of Reinforced and Unreinforced Butter and Cheese Boxes; (25) List of Forest Service Publications. *Tree-Pamphlets.*—(1) White Pine; (2) White Spruce; (3) Douglas Fir; (4) Hemlock (Eastern); (5) Western Hemlock; (6) Red Pine; (7) Jack Pine; (8) Lodgepole Pine; (9) Balsam Fir; (10) Cedar (Eastern); (11) Western Cedar; (12) Sitka Spruce; (13) Western Yellow Pine. Forest Facts. Stories and Plays for Children:—Talking Trees; Betty in Dreamland; The Woodland Fairy. Bow River National Forest (descriptive pamphlet with map). *Forestry Topics.*—(2) Forest Fire Protection in Canada; (3) Silviculture in Canada; (4) The Need of a Definite Forestry Policy; (5) Tree Planting for Ornamental Purposes. Manual of Methods of Communication Adapted to Forest Protection. Dominion Forestry Branch Message Code. Forest Research Manual. The Tree Planting Division: Its History and Work. The Forests of Canada. Tree Planting in the Prairie Provinces of Canada. Timber Testing in Canada. Timber Pathology in Relation to Wood Utilization in Canada. Wood Preservation in Canada. Forest Fire Protection in Canada: Progress since 1923. Pulp and Paper Research in Canada. Timber Physics Research in Canada. Silvicultural Research in Canada. Aircraft in Forestry. State Forests in Canada. Softwood Resources of Canada.

Geodetic Survey of Canada.—Publications:—No. 1, Precise Levelling; No. 2, Adjustment of Geodetic Triangulation in the Provinces of Ontario and Quebec; No. 3, Determination of the Lengths of Invar Base Line Tapes from Standard Nickel Bar No. 10239; No. 4, Precise Levelling; No. 5, Field Instructions to Geodetic Engineers in charge of Direction Measurement on Primary Triangulation; No. 7, Geodetic Position Evaluation; No. 8, Field instructions for Precise Levelling; No. 9, The making of Topographical Maps of Cities and Towns, the First Step in Town Planning; No. 10, Instructions for Building Triangulation Towers; No. 11, Geodesy; No. 12, Mathematical Statistics of the Geodetic Survey of London, Ont. (Distributed at London, Ont.); No. 13, Errors of Astronomical Positions Due to Deflection of the Plumb Line; No. 14, Precise Levelling—Co-ordination of elevations of Bench Marks in the City of Calgary, Alberta, to mean sea level; No. 15, Precise Levelling—Bench Marks established along Meridians, Base Lines and Township Outlines in Saskatchewan (also certain lines in Alberta); No. 16, Levelling. Precise Levelling in Nova Scotia, New Brunswick and Prince Edward Island; No. 17, Levelling. Precise Levelling in Quebec south of St. Lawrence river; No. 18, Levelling. Precise Levelling in Quebec north of St. Lawrence river; No. 25, The Conversion of Latitudes and Departures of a Traverse to Geodetic Differences of Latitude and Longitude; Instructions to Lightkeepers; Use of Electric Signal Lamps, being Appendix No. 4 to Publication No. 5; Operations of the Geodetic Survey of Canada, April 1912 to Mar. 31, 1922, prepared for the first General Conference of the International Geodetic and Geophysical Union, Rome, 1922; Operations of the Geodetic Survey of Canada, April 1, 1922 to Mar. 31, 1924, prepared for the Second General Conference of the International Geodetic and Geophysical Union, Madrid, 1924; Operations of the Geodetic Survey of Canada, April 1, 1924 to Dec. 31, 1926, prepared for the Third General Conference of the International Geodetic and Geophysical Union, Prague, 1927; Annual Reports of the Director of the Geodetic Survey of Canada for the fiscal years ending Mar. 31, 1918 to 1928. *Precise Levelling Bulletins.*—(See list at p. 1036 of the 1927-28 Year Book).

Mining Lands Branch.—Yukon Placer Mining Act; Quartz Mining Regulations; Coal Mining Regulations; Placer Mining Regulations; Quarrying Regulations; Petroleum and Natural Gas Regulations; Potash Regulations; Dredging Regulations relating to the Yukon Territory; Dredging Regulations relating to beds of rivers outside of the Yukon Territory; Regulations relating to bar-diggings on the North Saskatchewan river; Regulations for the issue of oil and gas permits in the Northwest Territories; Alkali Mining Regulations; Regulations for the issue of permits to mine coal for domestic purposes; Regulations for the issue of permits to remove sand, stone and gravel from the beds of rivers and lakes; Carbon Black Regulations; Yukon Quartz Mining Act.

Natural Resources Intelligence Service.—Maps: Economic Atlas in cloth bound form ($3.00) containing charts and diagrams of population, industries, etc.; Railway maps of Canada, in four-sheet form, scale 35 miles to the inch ($1.00); one-sheet form, scale 60 miles to the inch, mounted (50 cents) and unmounted (25 cents); also 100 miles to the inch; Physical Map of Canada, scale 60 miles to the inch; Resource Map of Canada, scale 230 miles to the inch (French edition only); Sectional Road maps of Canada and United States, in four-sheets; Road Map of Canada and United States; Physical and Climatic Map of Western Canada; Map of Central Canada indicating transportation and commercial development; Map of Manitoba and part of Saskatchewan indicating transportation and commercial development; Vegetation and Forest Cover Map of the Dominion; Land Maps of Northern Alberta and Saskatchewan; Small Land Map of Manitoba, Saskatchewan and Alberta; Land Registration and Judicial Districts Maps of Manitoba, Saskatchewan and Alberta; Provincial series of Resource maps; Land District Maps of Dauphin, Winnipeg, Moose Jaw, Prince Albert, Lethbridge and Calgary, Edmonton, Grande Prairie and Peace River Land Agencies; Map of the Yukon Territory—Map of the Kluane, White and Alsek Rivers District (Yukon Territory): Standard Geographical sheets entitled Bonaventure, Belleville, Blanc-Sablon, Chibougamau, Cape Breton, Cornwall, Cartier, Calgary, English River, French River, Gaspe, Gatineau, Gowganda, Guelph, Harricanaw, Halifax, Hamilton, Hearst, Jasper, Kingston, Kootenay, Lake Nipigon, London, Mattagami, Montreal-Quebec, Montmagny, Montreal, Moncton, Megantic, Manitoulin, Nipissing, New Brunswick, Ottawa, Okanagan, Prince Edward Island, Pembroke, Parry Sound, Quebec, Rainy River, Roberval, Sault Ste. Marie, Sudbury, Sherbrooke, Tadoussac, Truro, Timiskaming, Toronto, Vancouver, Victoria, Windsor, Yarmouth; Motor and Recreational Resource Maps of New Brunswick, Prince Edward Island and Nova Scotia. *Reports and Pamphlets*—Compact Facts; Natural Resources Intelligence Service (English and French editions); Monographs on the leading fur-bearing animals; The Muskrat, A Canadian Fur Resource; Catalogue of Publications; Lists of Lantern Slide lectures on the Natural and Recreational Resources of Canada; Agricultural Loans (English and French editions); Manitoba, Its Development and Opportunities; Saskatchewan, Its Development and Opportunities; Peace River Country (French and English edition); Nova Scotia, Its Development and Opportunities; Prince Edward Island, Its Development and Opportunities; Lists of Unoccupied Farms for Sale in Manitoba, Saskatchewan and Alberta; Les Ressources Naturelles de Québec; The Maxwellton District in Nova Scotia; Opportunities for Settlers in Kings and Annapolis Counties, Nova Scotia; Lists of Unoccupied Farms for Sale in New Brunswick; Fishing in Canada; Camping in Canada; Canoeing in Canada; Motoring in Canada; Winter in Canada; Vacations in Canada; How to Enter Canada; The Preparation of Pelts for the Market (English and French editions); Canadian Capitals blotters; Canada's Natural Resources; Animated Atlas of Canada; Canoe Trips to Hudson Bay; One Hundred Canoe Trips in Canada; Monographs of various Canoe Trips; The Hudson Bay Region; New Brunswick folder.

Northwest Territories and Yukon.—Northwest Territories Act; Northwest Territories Ordinances; Northwest Game Act; Regulations for the Protection of Game in the Northwest Territories; Northwest Territories Timber Regulations; Northwest Territories Hay and Grazing Regulations. Northwest Territories Oil and Gas Regulations; Manual for operators under Oil and Gas Regulations; Report of the Royal Commission upon the Possibilities of the Reindeer and Musk-ox Industries in the Arctic and Sub-Arctic Regions of Canada; Canada's Arctic Islands, 1922–1926; Les îles canadiennes de l'océan arctique, 1922; Canada's Wild Buffalo; Great Slave Lake Area; Canada North of Fifty-six Degrees; Map of the Northwest Territories—60 miles to 1 inch; The Yukon Act; The Yukon Territory, 1926; Yukon Land Regulations; Yukon Homestead Regulations; Yukon Hay and Grazing Regulations; Yukon Timber Regulations; Game and Fur Export Tax Ordinance of the Yukon Territory.

Topographical Survey.—Maps at 50c. in folder form or on linen backed paper, 25c. on plain paper, issued as follows: Maps on a scale of 1 mile to 1 inch; the New Glasgow, Wolfville and Comeau maps, in Nova Scotia, the Sussex and Fredericton maps in New Brunswick, the Sorel and Shawinigan maps in Quebec, the Calgary Northeast and lake Louise maps in Alberta and the Kamloops map in British Columbia. Maps on a scale of 2 miles to 1 inch; the Rouyn-Larder lake and the Rouyn lake maps in Northern Ontario and Quebec and the Kamloops lake map in British Columbia. Maps on a scale of 4 miles to 1 inch; the Carroll lake, Pointe du Bois, Kenora, Trout lake, lac Seul, lake St. Joseph, Sioux Lookout and Armstrong maps in Northwestern Ontario and Eastern Manitoba, the Kississing, Cormorant lake, The Pas, Wekusko lake, Grand Rapids, Norway House and Berens River maps in Northern Manitoba, the Prophet River and Halfway River maps in Northern British Columbia. *Sectional Maps of Western Canada.*—Old series, prices 10 and 15c. for thin and heavy paper respectively: Sectional maps, new series, showing greater topographical detail, such as roads, buildings, contours, etc., price 25c.; sectional maps covering same areas, on smaller scale, in black and white only, price 5c.; intermediate series, showing road information, price 10c., new series, price 15c. *Group Maps of Yukon Territory.*—At 10 and 15c. for thin and heavy paper respectively. *Maps of Canadian National Parks and Forest Reserves.*—Central part of Jasper Park (6 sheets);

Central part of Jasper Park (1 sheet); Crowsnest-Forest and Waterton Lakes Park (5 sheets); Waterton Lakes Park (1 sheet); Rocky Mountains Park; Yoho Park; Glacier Park; Revelstoke Park; Kootenay Park; Buffalo Park, 15c. per copy or per sheet. The Central part of Jasper Park (1 sheet), the Waterton Lakes Park and the Yoho Park maps are also available in folder form at 25c. each. Vicinity of Lake Louise, 10c.; Cypress Hills Forest Reserve, 25c.; Banff and vicinity, 25c. *International Map of the World.*—The Regina sheet, number N.M.13, scale 1: 1,000,000. *Maps of the Alberta-British Columbia Boundary.*—Part I and II, report and atlas, each part $6.00 or 25c. per sheet; part III not yet issued but single sheets may be obtained as follows: Numbers 29, 29A, 29B, 30, 30A, 31, 32, 32A, 33, 34, 35, 36, 39, 40, 41 and 42. *Maps of the Ontario-Manitoba Boundary.*—Report and atlas, unbound $3.00; bound, $4.75. *Land Classification and Soil Maps.*—Land classification and soil maps have been issued for the following districts, the price of the two maps for each district being 30c.:—District north and east of Preeceville; District south of Melfort; District northeast of Prince Albert, Turtleford district; Onion Lake, Sask.; District east of Vegreville; Athabaska district; Sylvan Lake district; Lac La Biche District. The following districts have been covered by the land classification maps only, price 15c. per copy:—District adjacent to Lakes Winnipegosis and Manitoba; St. Paul de Métis District; White Court District; Part of the Peace River District; Peace River Block. The following districts have been covered by the soil maps only, price 15c. per copy:—Mid Lake District; Pouce Coupé District; and Fort St. John District. *Township Development Plans.*—Township development plans showing detailed land classification and soil information for each separate township for the Vegreville, Vermilion and Preeceville districts, 50c. per copy. *Maps of Northern Canada.*—Price 25c. as follows: Northwestern Canada, scale 50 miles to 1 inch; also the following maps on a scale of 4 and 6 miles to 1 inch; Great Slave Lake (eastern and western sheets), Great Slave; Lockhart river basin; The Pas mineral area; Reindeer lake area; Fond du Lac river basin; Fort Smith to Resolution; Providence to Simpson; Simpson to Wrigley; Wrigley to Norman; Norman to Hume River; Hume River to Thunder River; Thunder River to McPherson and Aklavik; MacKenzie River delta and MacKenzie bay; Vermilion to Little Rapids; Chipewyan to Fitzgerald; McMurray to Lake Athabaska; Lake Athabaska; Churchill Harbour and vicinity, Provisional Edition, scale 2,000 feet to 1 inch. *Magnetic Maps.*—Lines of equal magnetic declination, inclination and horizontal intensity and their annual changes in Western Canada for 1922, 5c.; Lines of equal magnetic declination and annual change in Canada for 1922, 5c.; Lines of equal magnetic dip and annual change in Canada for 1927, 5c.; Lines of equal magnetic declination and annual change in Canada for 1927, 10c.; the March of the Compass in Canada and daily variation tables, 10c.; Nomogram showing duration of sunlight for every day in the year for all places in the world, price 10c. *Miscellaneous Maps.*—The Red Lake District, 50c. in folder form, 25c. in sheet form; Aeronautical map Winnipeg District, 50c. in folder form, 25c. in sheet form; miscellaneous maps showing contours as follows:—Topographic map of the Rocky Mountains (in 21 sheets), 15 sheets now in print, per sheet 15c.; map of Alberta showing elevations, north, centre and south sheets, per sheet 25c.; District of Calgary, 25c.; Edmonton and vicinity, 25c.; other miscellaneous maps as follows: Preliminary Topographic map of a portion of the foothills region, 50c.; Yukon map (in 10 sheets), per sheet 25c., Mount Robson and mountains of the continental divide north of Yellowhead Pass, 15c.; Reconnaissance map of the northern Selkirk mountains and the Big Bend of the Columbia River; the Atlantic Ocean between Canada and northern Europe, showing trans-Atlantic steamship routes. *Plans.*—Township plans, 10c.; plans of townsites, settlements and parishes, 25c. to $1.00. *Reports, Pamphlets, Bulletins, etc.*—Annual reports of the survey, 10c.; Manual of instructions for the survey of Dominion Lands, 50c.; supplement to the above Manual, 50c.; Astronomical field tables showing altitude and azimuth of the pole star; Explanation of above field tables; Rules and Regulations of the Board of Examiners for Dominion Land Suveryors. *Technical Reports and Pamphlets.*—Photographic methods employed by the Canadian Topographical Survey by A. O. Wheeler, F.R.G.S.; Photographic Surveying by M. P. Bridgland, D.L.S., 15c.; Papers on descriptions for deeds, 15c.; Description of boundary monuments erected on surveys of Dominion Lands 1871–1917, by H. L. Seymour, D.L.S.; Precise measuring with invar wires and the measurement of Kootenay base by P. A. Carson, D. L. S.; the copying camera of the Surveyor General's Office; Triangulation of the railway belt of British Columbia between Kootenay and Salmon Arm bases; Description, adjustment and methods of use of the six-inch micrometer block survey reiterating transit theodolite by W. H. Herbert, B.Sc.; Report on levelling operations Topographical Surveys Branch, from their inauguration in 1908 to 1914, by J. N. Wallace, D.L.S., 25c.; Bench marks established along certain meridians, base lines and township outlines in Alberta by J. N. Wallace, D.L.S., 25c.; Elevation of Lakes in Manitoba, Saskatchewan and Alberta, by J. N. Wallace, D.L.S., 10c.; Magnetic results in Western Canada, with four isomagnetic maps; Tests of small telescopes at the laboratory of the Dominion Lands Surveys; The testing of time-pieces at the laboratory of the Dominion Lands Surveys, 1919; Standardization of measures of length at the laboratory of the Dominion Lands Surveys; the adjustment and testing of transit theodolites, levels and surveying cameras at the laboratory of the Dominion Lands Surveys; Testing of thermometers at the Physical Testing Laboratory; How to read Topographic maps, 5c.; The March of the Compass in Canada and daily variation tables, 10c.; A study of the Dominion standard yard and other standards of length, bulletin number 60. *Reports*

on Descriptions of Townships.—Description of the townships of the Northwest Territories, between the Third and Fourth Meridians, 10c.; description of townships of Northwest Territories west of the Fourth and Fifth Meridians, 10c.; description of surveyed lands in the Railway Belt of British Columbia (3 parts Eastern, Central and Coast divisions), each 10c.; extracts from reports on townships east of the Principal meridian, received from surveyors to July 1, 1914, 10c.; extracts from reports on townships 1 to 16 west of the Principal meridian, received from surveyors to July 1, 1914, 10c.; extracts from reports on townships 17 and 32, west of the Principal meridian, received from surveyors to July 1, 10c. Extracts from reports on townships 33 to 88 west of the Principal meridian, received from surveyors to Mar. 31, 1915, 10c.; extracts from reports on townships 1 to 16, west of the Second meridian, received from surveyors to Mar. 31, 1915, 10c.; descriptions of surveyed townships in the Peace River District, in the provinces of Alberta and British Columbia, 10c.; description of the lands comprised within the Fort Pitt sectional map, 10c.; description of the townships surveyed in the different provinces, issued from 1909 to 1918. *Miscellaneous Reports.*—The Selkirk Range (2 vols.), $1.00; Report of the Alberta-British Columbia boundary, Part I, from International Boundary to Kicking Horse Pass, report and accompanying atlas $6; Part II, covering from Kicking Horse pass to Yellowhead pass, report and accompanying atlas $6; Part III, covering north of the Yellowhead pass, $1; Description of the Guide to Jasper Park, 50c.; Reprint of a report on an exploratory survey between Great Slave lake and Hudson bay, with maps, by J. W. Tyrrell, D.L.S., 1901, 50c.; Revised sheets of the sectional map of Canada; Classification of lands in western Canada; Report of an exploratory trip in the area covered by Halfway River and Prophet River sheets of the National Topographic series, bulletin No. 61, 10c.; List of maps, plans and publications issued by the Topographical Survey of Canada. *Relief Maps or Models.*—Sectional sheets scale 3 miles to 1 inch. Dufferin No. 22, Emerson No. 23, Moosejaw No. 69, Brandon No. 72, Winnipeg No. 73, Blackfoot No. 115, Regina No. 119, Rosebud No. 165, Red Deer No. 215, Saskatoon No. 218, Peace Hills No. 265, Edmonton No. 315, Qu'Appelle No. 120, Yorkton No. 170. Special maps as follows: Montreal District, Toronto District, Three Rivers District, scale 1 mile, Coaticook District, Sherbrooke District, Ottawa District, Halifax District, Quebec District, scale 1 mile, and Brome District 2 mile scale, Edmonton District scale 1 mile, Calgary District scale 3 miles, Porcupine and Pasquia Forest Reserve, 3 miles, Peace River District, 5 miles, Central portion Jasper Park, 1 mile, Banff and vicinity, 1 mile, and Riding Mountain Forest Reserve, scale 40 chains to 1 inch, and Canada, 60 miles to 1 inch.

The following National Topographical series sheets, scale 1 mile to 1 inch: Wolfville, N.S., New Glasgow, N.S., Sussex, N.B., Fredericton, N.B., Sorel, Que., Shawinigan, Que., Lake Louise, Alta.-B.C., Kamloops, B.C., Kamloops Lake, B.C., on a scale of 2 miles to 1 inch. For the various maps and publications of the Topographical Survey of Canada, apply to the Director at Ottawa.

International Boundary Commission.—Joint Report upon the survey and demarcation of the Boundary between the United States and Canada from the source of the St. Croix River to the St. Lawrence river, 1925, with accompanying triangulation and precise traverse sketches, $5; Joint Report upon the survey and demarcation of the Boundary between the United States and Canada from the western terminus of the land boundary along the 49th Parallel, on the west side of Point Roberts, through Georgia, Haro and Juan de Fuca straits, to the Pacific Ocean, 1921, with accompanying chart, $5; Joint Report upon the survey and demarcation of the boundary between the United States and Canada along the 141st Meridian from the Arctic Ocean to Mount St. Elias, 1918, $5; Report of the International Waterways Commission upon the International Boundary between the Dominion of Canada and the United States, through the river St. Lawrence and the Great Lakes, 1915, with full set of 30 maps, $7.50. *Maps.*—From the source of the St. Croix river to the Atlantic Ocean, 18 sheets except sheet No. 13, various scales, size 26 by 38 inches, 50c. each; from the St. Lawrence River to the source of the St. Croix river, 61 sheets and index sheet, various scales, 26 by 38 inches, 50c. each; International Waterways Commission sheets from the St. Lawrence River at St. Regis to the head of Pigeon Bay in Lake Superior, 29 sheets and index sheet, various scales 29½ by 36 inches, 25c. each; Northwest Angle Inlet of Lake of the Woods to the head of Pigeon Bay in Lake Superior, 36 sheets and index sheet, various scales, 26 by 38 inches, sheets 25–36 not yet published, 50c. each; 49th Parallel, Northwest Angle Inlet of the Lake of the Woods to Point Roberts, 59 sheets, index and profile sheets, scale 1: 62,500, size 15 by 30 inches, sheets 1 to 19, 50c. each, sheets 20 to 59, 25c. each; International Boundary from the west side of Point Roberts through Georgia, Haro and Juan de Fuca straits to the Pacific Ocean, 1 sheet, scale 1: 200,000, 28 by 41 inches, 50c.; S.E. Alaska from Cape Muzon to Mount St. Elias, 13 sheets 25 by 29 inches, scale 1: 250,000, sheets 1 and 2 not yet published, 50c. each; Preliminary Map—Head of Portland Canal to Stikine river, scale 1: 250,000, 24 by 33 inches, 25c. each; 141st Meridian from the Arctic Ocean to Mount St. Elias, 30 sheets, scale 1: 62,500 with profile sheet, index sheet and special Arctic coast sheet, size 18 by 27½ inches, 25c. each; Mount St. Elias to White River Sheet, 18 by 28 inches, scale 1: 250,000, size 19 by 28 inches, 25c.

Justice.—Annual Report of the Superintendent of Penitentiaries.

King's Printer and Controller of Stationery.—The Canada Gazette, published weekly by authority, with occasional supplements and extras, subscription in Canada and United States $5 per annum payable in advance, single copies 15c. each, other countries $8 per annum and 25 cts. per single copy. Judgments of the Board of Railway Commissioners, bi-monthly, $3 per annum, single copies, 20c.; Canada Law Reports, published monthly, yearly subscriptions, $6. Revised Statutes of Canada, 1927, $10. Acts, Public and Private, with amendments to date, 10c. to $1 per copy. Canadian Postal Guide, $1 paper cover, $1.50 cloth cover; yearly supplements 25c. Parliamentary Debates, "Hansard", issued daily during session, French and English, $3 per session each for House of Commons and Senate Debates; single copies, 5c. Prices of bluebooks are in nearly every case printed upon the front cover and are based practically on the cost of paper and presswork. They may be ordered direct from the King's Printer, Ottawa, or through any bookseller in the Dominion.

Labour.—*Monthly.*—The Labour Gazette (published in English and French) at a subscription price of 20c. per annum. *Annually.*—Report of the Department of Labour (including Report of Proceedings under the Industrial Disputes Investigation Act; Report of Proceedings under the Employment Offices Co-ordination Act; Report of Proceedings under the Technical Education Act; Report of Proceedings under the Government Annuities Act; Report of Proceedings under the Combines Investigation Act; Report of Proceedings under the Old Age Pensions Act). Labour Legislation in Canada as existing on Dec. 31, 1920 (a supplementary report thereto on Labour Legislation is published annually in February or March). Labour Organization in Canada (published each year about May or June). Organization in Industry, Commerce and the Professions in Canada. Co-operative Associations in Canada. *General Reports.*—Report of Royal Commission on Industrial Relations, bound with Report of Proceedings and Discussions of National Industrial Conference, 1919. Report of Commission appointed under Order in Council (P.C. 1929), September 22, 1923, to inquire into The Industrial Unrest among the Steel Workers at Sydney, N.S. Report of Provincial Royal Commission on Coal Mining Industry in Nova Scotia, January, 1926. Government Intervention in Labour Disputes in Canada. Old Age Pension Systems existing in Various Countries. Judicial Proceedings respecting Constitutional Validity of the Industrial Disputes Investigation Act, 1907, and Amendments of 1910, 1918, 1920 and 1925. Legal Status of Women in Canada. A series of bulletins on Vocational Education. *Reports of Investigations under the Combines Investigation Act:*—(1) Investigation into alleged combine in the distribution of fruits and vegetables in Western Canada, 1925; (2) Investigation into alleged combine amongst coal dealers at Winnipeg and other places in Western Canada, 1925; (3) Investigation into alleged combine limiting competition in the marketing of New Brunswick potatoes, 1925; (4) Investigation into alleged combine in the manufacture and sale of bread in the City of Montreal, 1926 (out of print); (5) Investigation into alleged combine in the distribution of fruits and vegetables produced in Ontario, 1926; (6) Investigation by Registrar into the Proprietary Articles Trade Association, 1926; (7) Investigation by Commissioner into the Proprietary Articles Trade Association, 1927. *Bulletins in Industrial Relations Series*, as follows:—(1) Joint Councils in Industry; (2) Report of a Conference on Industrial Relations; (3) Joint Conference of the Building and Construction Industries in Canada; (4) Employees' Magazines in Canada; (5) Canada and the International Labour Conference; (6) International Labour Organization; (7) Canadian Railway Board of Adjustment, No. 1; (8) National Conference Regarding Winter Employment in Canada; (9) Canadian Railway Board of Adjustment, No. 1, Third Report. *Reports in Series on Wages and Hours of Labour* as follows:—(1), (2), (3) and (4), entitled Wages and Hours of Labour in Canada, 1901-1920; Sept., 1920, and June, 1921; Sept., 1920, and Sept., 1921; 1921 and 1922, respectively: (5) Hours of Labour in Canada and Other Countries: (6), (7) and (8), entitled Wages and Hours of Labour in Canada, 1921, 1922 and 1923; 1920 to 1924; 1920 to 1924 (Supplementary to Report No. 7): (9) (10) (11) and (12), Wages and Hours of Labour in Canada, 1920 to 1925, 1920 to 1926, 1920 to 1927, and 1920 to 1928, respectively. Four bulletins on Prices in Canada and in other countries in 1925, 1926, 1927, and 1928 respectively.

Marine and Fisheries.—Marine Annual Report, containing Harbour Commissions and steamboat inspection. List of Canadian Shipping. Reports of Expeditions to Hudson bay, Northern Waters and Arctic Archipelago. Canadian Port Directory. List of Lights, etc., in Canada:—(a) Pacific Coast; (b) Atlantic Coast; (c) Inland Waters.

Charts and Publications of the Canadian Hydrographic Office.—Catalogue of Canadian Government publications of use to Mariners (free). *Pilots.*—(price 50 cents per copy). St. Lawrence Pilot (below Quebec), comprising sailing directions from Cap des Rosiers to Quebec, 4th edition, 1926. St. Lawrence Pilot (above Quebec), comprising sailing directions from Quebec harbour to False Ducks island and Stony point, lake Ontario, 1920. Sailing Directions for the Canadian shores of lake Ontario, 1921. Sailing Directions for the Canadian shores of lake Huron and Georgian bay, 1927. Sailing Directions for the Canadian shores of lake Superior, 1922. Supplement No. 1 to the above, 1923. Navigating charts. *Reports of the International Waterways Commission:*—On the regulation of lake Erie, 1910. On the International Boundary Line through the St. Lawrence river, Great lakes and connecting waters, 1915. *Tidal and Current Survey Reports* (issued free of

charge).—Currents in the gulf of St. Lawrence, including the Anticosti region, Cabot strait and Northumberland strait. Currents of the southeastern coasts of Newfoundland. Currents in the entrance to the St. Lawrence estuary. Tables of Hourly Directions and Velocity of currents and time of slack water in the Bay of Fundy. Tide Levels and Datum Planes on the Pacific coast of Canada. Tide Levels and Datum Planes in Eastern Canada; giving the levels in 86 harbours and other localities. Tides at the head of the Bay of Fundy, with diagrams. Tidal investigations and results; Arctic Tides, with map. Tides and Tidal Streams; a general description of the various types of tide and the behaviour of currents, with plates. Temperatures and Densities of the waters of Eastern Canada, with maps. *Tide Tables* (issued free of charge). Tide Tables for the Pacific coast. Tide Tables for the Eastern coasts of Canada. Abridged edition for Quebec, Father Point and the St. Lawrence river. Abridged edition for Saint John, N.B., and the Bay of Fundy. Abridged edition for Vancouver and the strait of Georgia.

Charts of the Canadian Hydrographic Office.—(price 25 cents each).—Numerous charts are published of the Atlantic coast and its harbours, Hudson bay and harbours and anchorages, the St. Lawrence river, the Ottawa river, lake Ontario and harbours, lake Erie and harbours, lake Huron and Georgian bay and harbours, lake Superior and harbours, lake of the Woods, lake Winnipeg, Pacific coast and harbours. There are also a number of International Waterways Commission charts, not intended to serve for navigation.

Radiotelegraph Branch.—Maps showing the Radiotelegraph stations in the Dominion of Canada. Postmaster-General's Handbook for Radiotelegraph Operators (Instructions *re* handling of traffic, etc.). Radiotelegraph Act and regulations issued thereunder. Radio Inductive Interference Bulletin No. 1. Circular letter to Canadian Broadcast listeners *re* interference from the Regenerative Receiving Set. Official List of Radio Stations in Canada (price 25 cents). Form for "License to use Radio".

Mines.—The scientific and investigatory work of the Department of Mines, which is chiefly concerned with the development of the Dominion's mineral industries, is carried on by the Department's four principal branches—the Geological Survey, the Mines Branch, the National Museum of Canada and the Explosives Division.

The Geological Survey carries on areal and economic investigations and research work in geology and mineralogy; the Mines Branch carries on field, laboratory and industrial investigations covering the various phases of the mining and metallurgical industries from the primary occurrence of the ores to the utilization of the finished product; the National Museum of Canada carries on scientific investigations in all branches of natural history; and the Explosives Division, under the provisions of the Explosives Act, 1914, has supervision of the manufacture, testing, storage, and importation of explosives and issues the licenses and permits authorized by the Act.

The Department of Mines publishes an annual administrative report covering the activities of the whole Department, and occasional pamphlets illustrating the services rendered the mining and metallurgical industries. Each of the branches publishes annual reports in addition to memoirs and bulletins on special investigations and districts.

The Geological Survey Branch.—From 1842 to 1904, published annual volumes. From 1904 to 1910, upwards of 80 reports were issued, all separately. Since then, the publications have consisted of memoirs and bulletins appearing at irregular intervals, an annual summary report and miscellaneous publications, including geological and topographical maps, geological guide books and handbooks. The subjects dealt with include areal and economic geology of particular districts, mineralogy, palaeontology and related topics. In 1926 the first volume of a new Economic Geology Series was published, and further volumes of this series have since been issued. A list of the reports published by this Branch may be obtained on application to the Director, Geological Survey, Ottawa.

The National Museum of Canada has published a series of *Museum Bulletins* in many branches of natural history. A list of these may be obtained on application to the Director, National Museum of Canada, Ottawa.

The Mines Branch, since its inception in 1908, has published annual summary reports covering the investigations of the Divisions of Mineral Resources, Ore Dressing and Metallurgy, Fuels and Fuel Testing, Ceramic and Road Materials and Chemistry, also the operations of the Dominion Assay Office. More detailed and comprehensive reports have also been published by this branch, dealing with the technology of most of the economic minerals of Canada. A list of the Mines Branch reports may be had on application to the Director, Mines Branch, Ottawa.

The Explosives Division has published annual reports since 1919 and a number of pamphlets on the proper care and handling of explosives. Copies may be obtained on application to the Chief Inspector of Explosives, Department of Mines, Ottawa.

The publications of the Department of Mines cover all phases of mining from preliminary explorations and surveys of unmapped territory through the mining, milling, smelting and refining of the ores to the marketing and utilization of the finished product. Most of these reports and maps may be obtained free of charge by those interested on application to the Deputy Minister of Mines, Ottawa, or to the Directors of the Branches concerned, whose addresses are given above. Many of these reports may be had in French translations.

National Defence.—*Militia and Defence.*—Annual Report; Militia List; Militia Orders; General Orders. *Naval Service.*—Naval Service Annual Report. *Air Board.*—Report on Civil Aviation.

National Research Council.—*Annual Reports.*—Reports of the National Research Council for the years 1917–18; 1918–19; 1919–20; 1920–21; 1921–22; 1922–23; 1923–24; 1924–25 (English and French); 1925–26; 1926–27. *General Reports.*—(For Nos. 1 to 21 see p. 1042 of the 1927–28 Year Book). No. 22, An Experimental Study of Sieving, by J. B. Porter, Ph.D., D.Sc.; No. 23, The Storage of Apples in Air-cooled Warehouses in Nova Scotia, by S. G. Lipsett, Ph.D., covering investigation by Associate Committee on Fruit Storage; No. 24, The Drying of Wheat, covering an investigation by the Associate Committee on Grain Research. *Bulletins.*—(For titles of Nos. 1 to 12, see p. 1042 of the 1927–28 Year Book).

National Revenue.—Annual Report containing statements relative to Imports, Exports, Excise and Income. Annual Report of Shipping. National Revenue Review (monthly).

Post Office.—Annual Report of the Postmaster General. Official Postal Guide. Regulations as to rural mail delivery. Booklet of Postal Information.

Public Works.—Annual Report.

Railways and Canals.—Annual Report of the Department; Final Report of the Highways Branch for the fiscal year, 1928.

Secretary of State.—Annual Report. The Arms of Canada.

Trade and Commerce.—Annual Report of the Dept. of Trade and Commerce, 10c.; Annual Report of the Board of Grain Commissioners for Canada, 10c.; Annual Report of Weights and Measures Inspection Service, 10c.; Annual Report of Electricity and Gas Inspection Service, 10c.; Canada-West Indies Conference (1920), 25c.; Canada-West Indies Confer-1925; with text of Canada-British West Indies-Bermuda-British Guiana-British Honduras Trade Agreement (1925), $1.00; List of Licensed Elevators, etc., 50c. (Applications for the above-mentioned publications should be made to the King's Printer, Ottawa, and for the under-mentioned publications to the Deputy Minister of Trade and Commerce.) Dominion Grain Research Laboratory (1920); Annual Report of the Dominion Grain Research Laboratory (1928); Electrical Standards and their application to Trade and Commerce; Final Report of the Fuel Controller (1919); Motion Pictures, catalogue of, 10c.; Pan Pacific Commercial Conference (1923), 10c.

Publications of the Commercial Intelligence Service.—(Note.—Publications of the Commercial Intelligence Service are free to subscribers to the Commercial Intelligence Journal). Commercial Intelligence Journal (weekly in English and French), containing Reports of Trade Commissioners and other commercial information. (Annual subscription: In Canada, $1; single copies, 5c.; outside Canada $3.50; single copies, 10c.). Chinese Markets for Canadian Products (1919), 25c.; Czechoslovakia as a Market for Canadian Products (1927), 25c.; Denmark as a Market for Canadian Products (1926), 25c.; German War and its Relation to Canadian Trade (1914), 25c.; Indian Empire as a Market for Canadian Products (1922), 25c.; Lumber Market of Japan (1926), 25c.; Markets of British Malaya (1923), 25c.; Markets of Jamaica and the Republic of Colombia, Venezuela and Panama (1922), 25c.; Peru as a Market for Canadian Products (1926), 25c.; Report of Special Trade Commission to Great Britain, France and Italy. (French and English) (1916), 25c.; Russian Trade (1916), 25c.; Sweden as a Market for Canadian Products (1928), 25c.; Trade of the African Sub-Continent (1928), 25c.; Timber Import Trade of Australia (1917), 25c.; Trading Opportunities in Scandinavia (1922), 25c.; Trading with Brazil: Hints to Exporters, 5c.; Trading with Colombia and Venezuela (1928), 25c.; Trading with Egypt (1921), 25c.; Trading with Greece (1921), 25c.; Trade with South China (1918), 25c.; Toy Making in Canada (1916), 25c.; West Africa and Its Opportunities for Canadian Trade (1921), 25c.; The French Canadian Homespun Industry (French and English), Free.

Publications of the Dominion Bureau of Statistics.—For the publications of the Dominion Bureau of Statistics, see pages 999 to 1005.

Section 4.—Publications of Provincial Governments.

PRINCE EDWARD ISLAND.

Journal of the Legislative Assembly. Statutes. General Index of Statutes of P.E.I., 1869-1928. Royal Gazette. Annual Reports of the Provincial Auditor on Public Accounts and of the Departments of Public Works, Education, Agriculture, Falconwood Hospital (for the Insane) and Vital Statistics.

NOVA SCOTIA.

Royal Gazette. Statutes, Journals and Proceedings of the House of Assembly. Journal of Education. Manual of the Public Instruction Acts and Regulations of the Council of Public Instruction, 1921. Annual Reports on Public Accounts, Public Health—Vital Statistics, Statistics of Incorporated Towns and Municipalities, Education, Fire Marshal,

Mines, Provincial Museum, Rural Telephones, Humane Institutions, Public Charities (including reports of Hospitals and Sanatorium), Penal Institutions, Child Welfare, Temperance, Printing, Legislative Library, Public Utilities Board and Workmen's Compensation Board, Provincial Secretary, Department of Natural Resources (including Agriculture, Agent-General in London, Factory Inspector), Department of Highways, Department of Lands and Forests, and the Power Commission.

NEW BRUNSWICK.

Royal Gazette. Statutes. Annual Reports of the Auditor-General, of the Board of Health, of the Departments of Education and Agriculture (including Horticulture). Annual Reports on Public Works, Crown Lands, the Hospital for the Insane, the Factory Report, Report of the Jordan Memorial Tuberculosis Sanatorium at River Glade, Report of Women's Institutes, Report of the Workmen's Compensation Board, Report of Public Utilities Commission, Report of N.B. Hydro-Electric Power Commission.

QUEBEC.

Note.—The titles of publications available in the English language are printed in English.

Attorney-General.—Annual List of Public Officers of the Province of Quebec.

Provincial Secretary.—Annual Report of the Secretary and Registrar; Annual Report of the Superior Board of Health of the Province of Quebec; Statistical Year Book; Education Statistics; Financial Statistics of School Corporations; Municipal Statistics (annual); Judicial Statistics (annual); Statistics of the Penal Establishments (annual); Statistics of the Benevolent Institutions (annual); The Official Gazette (weekly); The Statutes of the Province (annual); Revised Statutes of the Province (1925); List of Municipal Corporations (annual); Rapport de l'Archiviste (annuel); Monuments commemoratifs de la province de Québec, P.-G. Roy; Report of the Director of Public Charities.

Treasury.—Annual Statement of Public Accounts; Annual Estimates; Annual Budget Speech; Annual Report on Insurance Companies; Annual Report on Mutual Benefit Associations; Annual Report on Trust Companies.

Lands and Forests.—Annual Report of the Minister; Surveyed Townships and explored Territories, 1889; Richesse Forestière de la Province de Québec, J.-C. Langelier, 1905; La Forêt, Fernow, 1905; Table of Families of Twelve Children, Eugène Rouillard, 1904, 1906; Townships Surveyed and Territories Explored, 1908; List of Timber License Holders, 1911; Dictionnaire des Lacs et Rivières de la province de Québec, Eugène Rouillard, 1914; Circular No. 1, la Rouille vésiculaire du Pin blanc, G.-C. Piché; The Water Powers in the Province of Quebec (illustrated), 1917; Nomenclature of the Geographical Names in the Province of Quebec, Quebec Geographical Commission; Dictionnaire des Lacs et Rivières; Annual Report of the Quebec Streams Commission; Notes on the Forests of Quebec, G.-C. Piché; Forêts et chutes d'eau de la province de Québec; Rapport du Service de Protection; Tableau des forces hydrauliques concédées de 1867 à 1923; Forests and Waterfalls.

Agriculture.—*Annual Reports.*—Department of Agriculture; Competition for Agricultural Merit; Dairymen's Association; Pomological Society; Society for Protection of Plants. *Journal of Agriculture and Horticulture*, illustrated, monthly. *Bulletins.*—(1) Plans for Cheese and Butter Factories; (16) Guide de l'arboriculteur; (24) The Great Fallacy of White Bread; (25) Short Study on Cereals; (39) Celery Culture; (40) How to plant your Fruit Trees; (43) Bean Culture; (44) Vegetable Culture; (45) List of Presidents and Secretaries of Agricultural Societies; (48) Manuel de médecine vétérinaire; (49) Home Canning of Fruit Products; (50) Sheep Raising for Profit in Quebec; (61) Les engrais chimiques et amendments; (62) Le rucher québecois; (67) Insectes nuisibles aux animaux de la ferme; (69) Enemies of Gardens and Orchards; (71) Payment of Milk and Cream; (72) Nos érablières; (73) Instructions to school-farmers; (75) Chaux et calcaire pulvérisé; (78) Farm Gas Engines; (80) Les constructions rurales; (81) Désinfection des semences; (82) Les semences de grande culture, etc.; (83) L'élevage des dindons; (84) L'élevage des oies et canards; (87) La culture des pommes de terre; (88) Les engrais chimiques; (89) Tile drainage of Farm Lands; (90) Experiments with Grain Crops; (91) Système de culture et de rotation; (92) The Corn Borer; (93) L'élevage du porc. *Circulars.*—(3) The Hatching Hen and her Chicks; (22) Stable contests; (25) Corn culture; (27) Calendrier d'arrosage pour les vergers; (28) Wheat growing; (30) De la culture de l'orge; (31) Oats culture; (32) Flax culture; (43) The building of a manure shed; (44) Root competitions; (45) Fall rye in Quebec; (46) Avoine; (48) Culture du blé d'Inde; (49) The smuts of cereals; (50) Maladies des plantes; (51) Farm underdrainage; (52) Sun-flowers; (53) Late blight of potatoes; (54) Grain crops and their culture; (55) Sweet clover; (56) Soil management and crop rotations; (57) Planting and caring for the corn crop in Quebec; (58) Root growing; (59) Farm manures; (60) Organizing an agricultural co-operative society; (61) Plant diseases; (62) Sources of seed; (63) Hay and pasture crops; (64) Green manuring; (65) Common weeds and their control; (66) Alfalfa growing in Quebec; (67) Notes on the use of lime on the land; (68) Instructions to school gardeners; (69) Le paiement du lait; (71) Concours de fourrages verts; (72) Loi des mauvaises herbes. *Miscellaneous.*—(113) Tableau des mala-

dies des volailles; (117, 118, 119) Plans de poulaillers; (122) Tableau des éléments fertilisants; (128) La province de Québec; (134) Règlements des cercles agricoles; (136) Lois sur l'agriculture; (138) Lois-Conseil d'Agriculture; (139) Règlements du Conseil d'Agriculture; (141) Classification de la crême; (142) Home canning; (143) Comité de surveillance des étalons; (145) Loi amendant des travaux de drainage; (146) Loi relative aux emprunts de drainage; (149) Suggestions for exhibitors and judges; (159) Brochure—Mangeons du fromage; (164) Dairy farming; (165) Statuts et règlements des co-opératives; (173) Parasites et insectes nuisibles; (184) Tableau des mauvaises herbes.

Roads.—Annual Report of the Minister of Roads; An Act Respecting the Roads Department (1927); Official Bulletin of the Roads Department (Issued semi-monthly during the summer season); Official Highway and Tourist Map (1929); L'hôtellerie moderne; Quebec, the French-Canadian Province (1926); La bonne cuisine canadienne; 4, 5 and 6 days in Quebec (1928); The Old World at your Door (1928); The Gaspé Peninsula (1929, de luxe booklet); Series of 50 post cards of the Gaspé Peninsula (1928); La Gaspésie (1929).

Colonization, Mines and Fisheries.—Minéralogie pratique à l'usage des Prospecteurs, par J. Obalski (1910); Fur Farming in the Province of Quebec, 1921; Esquisse Géologique et Minéraux Utiles de la Province de Québec (1927); Iron ores of the Province of Quebec, by P.-E. Dulieux (1915); Extracts from reports on the district of Ungava, by T.-C. Denis (1915); Report on the Copper Deposits of the Eastern Townships, by J. Austen Bancroft (1916); L'industrie de l'amiante dans la province de Québec (1917); Le Guide du colon 1927; Quebec Ready Reference, 1927; Report on Gold Deposits of lake Demontigny, by Ad. Mailhiot, 1922; Geological Sketch and Economic Minerals of the Province of Quebec (1924); Annual Reports on Mining Operations in the Province of Quebec.

Public Works and Labour.—Minister's Report; Compensation Act.

Public Instruction.—Code scolaire (1927); School Law (1920); An Act respecting the Department of Education (1925); Regulations of the Catholic Committee (1924); Regulations of the Protestant Committee (1926); Memoranda of Instructions to Teachers for Intermediate and High Schools (1925); Annual Report; Financial Statement of the Superintendent of Public Instruction (annual); Mon premier livre (1st and 2nd part) (1900), a fresh edition of which is printed every year; l'Enseignement primaire; Educational Record: Yearly circulars containing instructions to school boards and school inspectors; Course of English and French for English Catholic schools (1926); Manual respecting the course of study in the Protestant elementary schools; List of authorized text books.

Legislative Council.—Agenda Paper of the Legislative Council; Votes and Proceedings of the Legislative Council; Journals of the Legislative Council; Rules and Regulations of the Legislative Council.

Legislative Assembly.—Agenda Paper of the Legislative Assembly; Votes and Proceedings of the Legislative Assembly; Journals of the Legislative Assembly; Sessional Papers, Departmental Reports and Returns to Orders and Addresses of the Legislative Assembly; Report of the Clerk of the Crown in Chancery on elections (published after every general election); Report of the Librarian of the Legislature; Annotated Rules and Standing Orders of the Legislative Assembly of Quebec; Private Bills in the Legislative Assembly of Quebec (a manual containing the rules relative to); Government and Legislature; List of the Chairmen and Members of the Committees of the Legislative Assembly.

ONTARIO.

Agriculture.—*Annual Reports.*—Minister of Agriculture; Agricultural College and Experimental Farm; Agricultural and Experimental Union; Stallion Enrolment Board; Agricultural Statistics; Bee-keepers' Association; Fruit Growers' Association; Vegetable Growers' Association; Entomological Society; Agricultural Societies; Horticultural Societies; Women's Institutes; Annual Report of Ontario Veterinary College. *Bulletins.*—(335) The Strawberry; (336) Cheese and Buttermaking; (337) Parasites Injurious to Sheep; (338) Hints on Judging Live Stock, Poultry, Grains, Grasses and Roots; (339) Potatoes; (340) Parasites Injurious to Swine; (341) Paints and Painting; (342) Fire Blight; (343) New Fruits; (344) Fruit Trees Diseases. (For previous bulletins, see p. 1046 of the 1927–28 Year Book.) *Specials* (without serial number).—Food for the Family. *Colonization Branch.*—"Northern Ontario Ready Reference".

An average charge of 10c. each (including postage, now required to be paid) for the above bulletins, and 15c. for annual reports, is made to individuals living outside of Ontario.

Attorney-General.—Reports of Inspectors; Legal Officers; Registry Offices; Insurance; Division Courts. Annual Reports of Liquor Control Board and Commissioner of Provincial Police. Coroners Act (Hand book).

Education.—Annual Report of the Minister of Education. Archaeological Report. Schools Acts. Regulations and Courses of Study:—Public and Separate Schools; Continuation Schools; High Schools and Collegiate Institutes; Courses of Study and Examinations in Schools Attended by French-speaking Pupils; School Cadet Corps; General Announcement of Summer Courses, Text Book regulations, including list of those authorized

and their prices; and the list of School manuals with their prices; Summer Model Schools for Training of Teachers; English-French Model Schools; Syllabus of Regulations and Normal School Courses for First and Second Class and Kindergarten-Primary Certificates; List of Teaching Days of High, Continuation, Public and Separate Schools; Recommendations and Regulations for Vocational Schools, etc. Recommendations and Regulations for Agriculture and Household Science Departments. Courses in History for Junior High School Entrance Examinations. Junior High School Entrance and Junior Public School Graduation Examination Instructions. Regulations *re* Validity of Teachers' Certificates; Special List of Schools; Announcement *re* the Cartier Scholarships; The Penny Bank of the Schools of Ontario; The School Attendance Acts and the Recommendations and Regulations and the Part Time Courses; The Consolidation of Rural Schools; List of Teachers' Manuals and prices; List of Schools and Teachers; Suggestions for Teachers of Subnormal Children; Accommodation, Equipment and Grants for Auxiliary Training Classes; Literature Selections for Departmental Examinations; Regulations, Medical and Dental Inspection, Public and Separate Schools.

The following publications may be obtained free of charge at the Department of Education, Toronto, on the application of any Public Library Board, "Schools and Colleges of Ontario, 1785-1910", three volumes; "Historical Educational Papers and Documents of Ontario, 1858-1876", six volumes.

Game and Fisheries.—Annual Report, Department of Game and Fisheries; Ontario Game and Fisheries Laws; Summary of the Ontario Game and Fisheries Laws; Practical Observations on the Fox and Proven Treatises of Common Ailments.

Labour.—Annual Report of the Department of Labour, including report of the Chief Inspector of Factories, Chief Inspector of Steam Boilers, Chairman of the Board of Stationary and Hoisting Engineers; General Superintendent of the Ontario Offices of the Employment Service of Canada; Interprovincial Regulations regarding Boiler Construction and Inspection; Annual Report of the Minimum Wage Board; Annual Report of the Mothers' Allowances Commission.

Department of Health.—*Legislation.*—(1) Public Health Act and Vaccination Act; (2) Vital Statistics Act; (3) Venereal Disease Prevention Act; (4) Cemetery Act. *Regulations.*—(1) Communicable Diseases, Tuberculosis, Summer Resorts and Boats, Sewage Disposal in Summer Resorts, Control of Meat, Pure Drinking Water in Public Places, Burial and Transportation of the Dead; (2) Disinfection; (3) Venereal Disease; (4) Sanitary Control of Lumber and Mining Camps; (5) Undertakers; (6) Slaughter Houses, Abattoirs and Manure; (7) Swimimng Pools; (8) Bottling of Non-Intoxicating Beverages; (9) Auxiliary Water Supplies; (10) Workers in Compressed Air; (11) School Medical and Dental Inspection; (12) Silicosis; (13) Prevention of Babies' Sore Eyes; (14) Minimum Standards for Tourist Camps and Refreshment Booths; (15) Requirements for Approval of Waterworks and Sewerage Systems; (16) Plumbing (proposed). *Publications.*—(1) Annual Report; (2) Bulletin for Health Officers; (3) Directory of M.O.H.'s and Secretaries of Local Boards of Health; (4) Skeleton Form Annual Report of M.O.H.; (6) Health Almanac; (7) The Baby; (8) Suggestions for Feeding of School Age Children; (9) Food and Nutrition; (10) Country Home and Summer Cottage; (11) Rabies; (12) Dental Guide; (13) Rural Sanitation (Bulletin No. 9); (14) Carbon Monoxide Poisoning. *Industrial Hygiene.*—(1) Occupational Diseases (A Rapid Reference Manual); (3) Health Confessions of Business Women; (4) Physical Examination in Industry; (5) What Physical Examination in Industry Does; (6) How Long Do You Plan to Live? (7) Industrial Hygiene and Human Conservation in Industry; (8) Development of Industrial Hygiene in Canada; (11) Lead Poisoning; (12) If This Were Your Hand; (13) Studies in the Control and Treatment of Nickel Rash; (14) Silicosis; Its Relation to Tuberculosis; (15) A Case of Silicosis with Autopsy; (16) Uric Acid Determination in the Blood; (17) Ventilation in the Light of Modern Research; (18) Modern Principles of Efficient Lighting; (19) Clothes and Colds; (20) Some Clinical Aspects of Industrial Poisoning; (21) Hazards for Spray Painting Machines. New Series: (1) A Study of the Atmospheric Conditions in Two Ontario Schools; (2) Some Clinical and Pathological Observations on Silicosis in Ontario; (3) Development of Industrial Hygiene in Canada; (4) Infection of Industrial Accidents is Costly; (5) Some Queries About Respiratory Disease in Industry. *Leaflets re Communicable Diseases.*—(1) Consumption (a) General Precautions, (b) Personal Precautions; (2) Diphtheria (a) Prevention of Diphtheria; (3) Scarlet Fever (a) How to Prevent Scarlet Fever; (4) Measles; (5) Smallpox (a) vaccination; (6) Anterior Poliomyelitis; (7) Whooping Cough; (8) Cancer; (9) Venereal Disease (a) General Facts, (b) Facts for Young Men, (c) Facts for Young Women, (d) Latrine Posters for Men.

Lands and Forests.—Annual Report. Handbook of Northern Ontario on Colonization. Handbook on Summer Homes, Tourists and Campers in Ontario. The Forest Trees of Ontario (25c.). Woodlots of Ontario. Tree Planting, Ontario.

Mines.—Mines Act, 1927; Ontario's Mines and Mineral Resources; Bulletin 64; Preliminary Report on the Mineral Production of Ontario in 1927; Report of Royal Ontario Nickel Commission, 1917; Report of Ontario Iron Ore Committee, 1923; Volume XXX, Part II, Ontario Gold Deposits; Volume XXXIII, Part II, 1924, Porcupine Gold Area;

Volume XXXIV, Part II, Gypsum in Ontario; Final Report of Joint Peat Committee; Volume XXXVI, Part I, 1927, Statistical Review and Mines of Ontario; Bulletin No. 25, List of Publications, giving all reports issued up to Aug. 1927.

Premier.—Report of the Hydro-Electric and Timiskaming and Northern Ontario Railway Commissions. Statistics of the Province. Tourists' Handbook.

Provincial Secretary.—Annual Reports: Hospitals and Charitable Institutions; Prisons and Reformatories; Hospitals for the Insane, Feeble-minded and Epileptics; Childrens' Aid Branch. Annual report of the Secretary and Registrar of the Province of Ontario. The Companies Act. Municipal Bulletins. Act respecting the Solemnization of Marriage. Ontario Board of Parole.

Public Highways.—Annual Report: Annual Proceedings, Ontario Good Roads Association; (9) Report of the Ontario-Highways Commission, 1914; (10) Regulations respecting Township Road Superintendents, 1916; (11) Regulations respecting County Roads 1920; (14) Township Road Improvement, 1918; (15) Highway Traffic Act, 1927; (16) General Specifications for Concrete Highway Bridges, 1920; (17) General Specifications for Steel Highway Bridges, 1923; (18) Highway Bridges, 1917; (19) General Plans for Steel Highway Bridges, 1917; (22) Report on Street Improvement, 1917; (29) Regulations respecting Township Roads, 1920; (34) The Planting and Care of Roadside Trees, 1923; (35) Public Vehicles Act, 1926. Consolidated Highway Improvement Act, 1926. Official Government Road Maps of Ontario, price 50c.

Public Works.—Annual Report of the Minister, with reports of the Architects, Engineer, Statements of Secretary and of Accountant. Report of the Queen Victoria Niagara Falls Park Commission.

Registrar-General.—Vital Statistics Act. Physicians' Pocket Reference to the International List of Causes of Death. Annual Report of Births, Marriages and Deaths.

Treasury.—Annual Statements; Main, Supplementary and Further Supplementary Estimates of Expenditure; Public Accounts; Budget Address of Treasurer delivered in the Legislative Assembly; Auditor's Report; Bureau of Archives Report.

MANITOBA.

Agriculture.—*Booklets.*—Manitoba—the Bull's-eye Province of Canada; Le Manitoba (French); Periodical Crop and Live Stock Reports; Map of the Province; Calendar of the Manitoba Agricultural College. *Bulletins and Circulars.*—Alfalfa and Sweet Clover Growing in Manitoba; The Trench Silo; Making Silage in Manitoba; Weeds of Manitoba; Couch Grass Eradication; Weed Control in Manitoba; Noxious Weeds Act; Dealing with the Weeds Problem in Manitoba; A simple Lesson on the Sow Thistle; Rusts and Smuts of Grains: Hand Selection and Harvesting the Seed Plot; Good Seed Pays; The Root Crop in Manitoba; Farm Butter-Making; Cheese-Making on the Farm; the Cream Separator on the Farm; Poultry Houses for Farm and Town; Hatching, Brooding, Feeding and Rearing Chicks; Home Made Brooders; Fattening, Killing, Dressing and Marketing Chickens; Turkey Raising in Manitoba; The Beef Ring; Co-operative Marketing in Manitoba; Protection from Lightning; Common Diseases and Disorders of the Foal; Horses in Manitoba; Learning to Judge Farm Animals; Manitoba Rations for Growing Bacon Pigs; Breeding and Feeding the Market Hog; Have you Dehorned your Market Cattle? Dairy Cattle; Baby Beef Production in Manitoba; Growing Small Fruits in Manitoba; Growing Vegetables in Manitoba; Peony Culture in Manitoba; Birds in Relation to Agriculture; Muskrat Farming In Manitoba; Beekeeping; Canning, Pickling and Preserving; Practical Cookery; Laundering and Dyeing; Dressmaking; Meat Curing Recipes.

Education.—Annual Report. Empire Day Booklet. Consolidation of Schools. Programme of Studies. Public Schools Act. Report of Commission on Education. Report of Committee on Revision of Program of Studies (Grades I to VI) (Grades VII to XI).

Municipal Commissioner.—Statistical information respecting the Municipalities of the Province and list of names and addresses of administrative and health officials of each municipality. Report of Municipal and Public Utility Board. Manitoba Tax Commission.

Public Works.—Annual Report, included in Sessional Papers.

Attorney-General.—Annual Report. Government Liquor Commission. Workmen's Compensation Board.

Provincial Treasurer.—Public Accounts; Estimates; Budget Speech. Report of Rural Credits Branch. Report of Manitoba Farm Loans Association.

Provincial Secretary.—Manitoba Gazette. Journals and Sessional Papers. Statutes of the Province.

Provincial Lands and Mines and Natural Resources.—Report of lands sold, unsold, etc.; Mines and Mining in Manitoba; Mining Map; Land Map of Manitoba.

Health and Public Welfare.—Annual Report.

Telephones.—Report of Manitoba Government Telephone Commissioners.

SASKATCHEWAN.

Agriculture.—Annual Report of the Department of Agriculture. Annual Reports of Branches, etc.:—Dairy, Live Stock, Field Crops, Statistics, Extension Department of College of Agriculture. Commission Reports:—Live Stock Marketing, Better Farming, Wheat Marketing. Bulletins and leaflets on Live Stock, Field Crops, Dairying, Farm Buildings, Tillage Methods, etc.

Other Publications.—Annual Reports:—Department of Railways, Labour and Industries; Department of Education; Department of Highways; Department of Municipal Affairs; Department of Provincial Secretary; Department of Public Works; Department of Public Health; Department of Telephones; Local Government Board; Public Accounts; The Public Service Monthly; The Saskatchewan Gazette.

ALBERTA.

Agriculture.—Alberta, a brief, well-illustrated handbook on the province; Official Highway Map of Alberta; Irrigated Farm Lands in Southern Alberta; Annual Report of the Department of Agriculture; Practical Irrigation in Alberta; The Ploughing Match; Summer-fallow in Southern Alberta; Storing of Roots; Alberta's Weed Problem; Weeds Poisonous to Live Stock; Soil Cultivation; Building up a Dairy Herd; Control of Grasshoppers; Destruction of Gophers; Sheep in Alberta; Housing of Swine; The Suckling Period; School Fairs Calendar; Agricultural Schools Calendar; Growing Feed in Southeastern Alberta; Alberta's Poultry Problem.

Education.—Annual Report; Courses of Studies for Elementary Schools; Regulations *re* Public School Leaving Examinations; Regulations *re* Examinations for Secondary School Grades; Handbook for Secondary Schools; Promotion Tests for Grades V, VI and VII; Departmental Examinations for Grades VIII-XII; Pamphlets on Picture Study; Architecture and Sculpture; Summer School Announcement; Course of Studies and Examinations for Commercial Diplomas; Normal School Announcement; Night Class Instruction in Mining Centres; Technical Education in Mining Centres; Bulletin and Regulations covering School Buildings in Rural and Village School Districts; Series of Plans and Specifications for Teachers' Residences; Series of Plans for one and two-roomed Schools, with Specifications; The Certification of Teachers in Alberta; Annual Announcement of the Provincial Institute of Technology and Art; School Act; Geography Manual for High Schools; Physical Education for Rural Schools; Physical Education for Secondary Schools; Rural Education in Alberta.

Attorney-General.—Annual Report on Dependent and Delinquent Children.

Treasury.—Budget Speech containing extracts from Public Accounts and other financial statements; Public Accounts.

Public Works.—Annual Report; Annual Report of Labour Bureau; Official Highway Guide.

Municipal Affairs.—Annual Report of Department; List of Alberta Municipalities; Report of the Assessment Equalization Board, Quinquennial Assessment, 1926 to 1930.

Public Health.—Annual Report of Department; Annual Report on Vital Statistics; Bulletins issued monthly on various Health Subjects. Pamphlets regarding Infectious Diseases—Diptheria, Scarlet Fever, Measles, Whooping Cough, Smallpox, etc. (in different languages.)

Other Publications.—Annual Reports are also issued by the following Departments and Branches—Provincial Secretary, Railways and Telephones, Treasury (Insurance Branch), Public Accounts, Board of Public Utilities.

BRITISH COLUMBIA.

Agriculture.—*Bulletins.*—Live Stock and Mixed Farming—(60) Hog-raising in British Columbia; (64) Goat-raising in British Columbia; (66) Silos and Silage; (67) Care and Feeding of Dairy Cattle; (68) Diseases and Pests of Cultivated Plants (3rd Edition); (71) Butter-making on the Farm; (80) Fur-bearing and Market Rabbits; (83) Preservation of Food, Home Canning, etc.; (85) Clearing Bush Lands; (86) The Potato in British Columbia; (92) Bee Culture in B.C., (98) Roots and Root-growing; (99) Care and Management of Sheep; (101) Small-fruit Farming in B.C.; an Economic Study; (102) A Survey of Poultry Farms in B.C. 1921-25; (103) Dairy-farming in B.C.; An Economic Study of 726 Farms. Poultry raising, etc.—(26) Practical Poultry-raising; (39) Natural and Artificial Brooding and Incubating; (49) Market Poultry; (63) Poultry-house Construction; (93) Feeding for Egg Production. *Poultry Circulars.*—(2) Tuberculosis in Poultry; (4) Management of Turkeys; (11) Poultry-keeping on a City Lot; (12) Management of Geese; (15) Profitable Ducks; (19) Poultry Rations for Chicks and Layers; (25) Hatching Hints; (27) Breeding Stock Hints; (28) Rabbit Recipes; Poultry-breeders' Directory. *Horticultural Circulars.*—Spray Calendar; (31) Peach-twig Borer; (32) Cabbage-root Maggot; (33) Strawberry-root Weevil; (34) Woolly Aphid of the Apple; (35) Currant Gall-mite; (36) The Onion-

thrips; (37) The Imported Cabbage-worm; (38) The Lesser Apple-worm; (39) Apple Aphides; (40) Soap Solutions for Spraying; (41) The Oyster-shell Scale; (42) Top-working of Fruit-trees and propagation; (43) Gardening on a City Lot; (44) Apple-scab; (45) Anthracnose; (48) Forcing Houses and frames for producing Early Vegetable Plants; (51) Orchard Cover Crops; (52) Diseases of Stone-fruits; (53) Selection of Orchard Sites and Soils; (54) Loganberry Culture; (55) Raspberry Culture; (56) Currant and Gooseberry Culture; (57) Blackberry Culture; (58) Strawberry Culture; (60) Pruning Fruit-trees; (61) Making Lime-sulphur at Home; (62) Planting Plans and Distances; (63) Locust-control; (64) Varieties of Fruit recommended for Planting in B.C.; (65) Tomato Growing in B.C.; (66) Fire-blight; (67) Rhubarb Culture; (68) Oil Sprays. *Agricultural Department Circulars.*—(33) Vancouver Island and Gulf Islands; (34) Agriculture in West Kootenay; (35) How to Pack Nursery Stock, etc.; (36) Preliminary Report of Forty-five Dairy-farms at Chilliwack, etc.; (40) The Okanagan Valley; (41) Poultry Farm Survey; (42) The Columbia-Kootenay Valley; (43) Agriculture in the Similkameen, Boundary, and Kettle River Districts; (44) Some Facts about B.C.; (45) Judging Domestic Science and Women's Work, with Hints to Exhibitors; (47) Use of Water in Irrigation; (48) Recommendations and Suggestions to Fall Fair Associations. *Dairy Circulars.*—(1) Starters for Farm Cheese-making ; (2) Farm Cheese; (3) Cottage Cheese; (4) Clotted Cream; (5) Varying Butter-fat Tests; (6) Care of Milk and Cream; (9) Dairy-farm Sterilizing Equipment; (10) Certified Milk and Butter-fat Records (year 1924); (11) Certified Milk and Butter-fat Records (year 1925); (12) Rules Governing Cow-testing Associations in B.C.; (13) A Farm Dairy Sterilizer; (14) Certified Milk and Butter-fat Records, 1926; (15) Certified Milk and Butter-fat Records, 1927; (16) Certified Milk and Butter-fat Records, 1928. *Field Crop Circulars.*—(1) Certified Seed-potatoes—Why they will pay; (2) The Colorado Potato-beetle in B.C.; (3) Kale and Rape Crops; (4) Noxious Weeds; (5) Peat and Muck Soils; (6) The Jerusalem Artichoke; (7) Root-seed Production; (8) Field Corn. *Research Bulletins.*—(1) Ropy Milk in B.C. *Miscellaneous Bulletins:*—(8) Agriculture in B.C. (2nd edition); Climate of British Columbia, 1925, 1926, 1927 and 1928.; (39) Small Fruit Survey; Agricultural Statistics, years 1925, 1926, 1927 and 1928. *Leaflets on Central B.C.*—(1) General; (2) The Skeena District; Bella Coola Valley; Nass Valley; Kitimat-Kitsumgallum Valley, etc.; (3) The Bulkley Valley; (4) The Fort Fraser District; Nechako Valley; François and Ootsa Lakes, etc.; (5) The Prince George District; (6) The Peace River District. *Reports and Miscellaneous.*—Agricultural Department Annual Reports. Years 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927 and 1928; Agricultural Fairs Association Report, 1925, 1926 and 1927; Board of Horticulture Rules and Regulations; Farm Account Book; Farmers' Institutes—Booklet on Aims and Objects, Rules and Regulations and Bylaws; List of Publications issued by the Department of Agriculture; Women's Institutes—By-laws, Rules and Regulations.

Lands.—*Forest Branch.*—(21) Uses, Strengths, and Working Stresses of B.C. Timber, *Grazing Branch.*—(3) Grazing Management of Crown Lands, Co-operation; Leaflet No. 13, Regulations and Instructions for the use of Crown Ranges for Grazing Live Stock; Annual Reports of Lands Department and Forest Branch.

Mines.—Comprehensive annual reports, obtainable on application to the Department of Mines; The Mineral Province of Canada (1929).

Bureau of Provincial Information.—Handbook of British Columbia, 1925; Game and Game Fishes of British Columbia; British Columbia Year Book; Highways, Motor Camps and Stopping Places in B.C.; British Columbia; Playground for the World. *Lands Series of Bulletins.*—(1) How to Pre-empt; (2) Some Questions and Answers regarding British Columbia; (3) British Columbia—Northern and Central Interior; (4) Grazing Possibilities of British Columbia; (5) British Columbia—Southern Interior; (6) British Columbia Coast, Howe Sound to Toba Inlet; (7) British Columbia Coast, Toba Inlet to Queen Charlotte Strait; (8) British Columbia Coast, Queen Charlotte Strait to Milbanke Sound; (9) British Columbia Coast, Milbanke Sound to Portland Canal; (10) Crown Lands, purchase and lease; (11) Cariboo Land Recording Division; (12) Kamloops Land Recording Division; (13) Similkameen Land Recording Division; (14) Vancouver Island; (15) Queen Charlotte Islands; (16) Cranbrook and Fernie Land Recording Divisions; (17) Yale Land Recording Division; (18) Osoyoos Land Recording Division; (19) Nicola Land Recording Division; (20)Nelson and Slocan Land Recording Divisions; (21) Revelstoke and Golden Land Recording Divisions; (22) Skeena Land Recording Division; (23) Stikine and Atlin Land Recording Division; (24) Hazelton Land Recording Division; (25) Peace River Country; (26) Omineca—Parsnip and Finlay Valleys; (27) New Westminster Land Recording Division; (28) François-Ootsa Lake District; (29) Endako and Nechako Valleys; (30) Stuart and Babine Lakes; (31) Vicinity of the Pacific Great Eastern Railway (Squamish to Clinton); (32) Vicinity of the Pacific Great Eastern Railway (Clinton to 52nd Parallel); (33) Central Lillooet Division; (34) The Chilcotin Plateau; (35) Fort George Land Recording Division, Central and Western portions; (36) Fort George Land Recording Division, Fraser River (south fork) and Canoe River; Assiniboia Park; Kokanee Park; Mount Garibaldi Park; Mount Robson Park; Strathcona Park.

CHAPTER XXVII.—THE ANNUAL REGISTER, 1928.

Section 1.—Dominion Legislation, 1928.

The following is an analysis of the Public Acts of the second session of the Sixteenth Parliament of Canada, begun and holden at Ottawa on Jan. 26, 1928 and closed by prorogation on June 11, 1928.

During the session 54 public and 268 private Acts were passed; these latter included 11 railway and bridge companies' Acts, 5 insurance and trust companies' Acts, 5 patent Acts, 8 other companies' Acts, and 239 divorce Acts.

Finance and Taxation.—Three Appropriation Acts were passed during the session, cc. 1, 2 and 54. Of these, c. 1 granted $37,198,027 on account of the fiscal year ended Mar. 31, 1929, c. 2 $3,306,347 on account of the fiscal year ended Mar. 31, 1928, while c. 54 granted sums of $185,852,184, $47,156,645, $10,468,612 and $1,000,200, as itemized respectively under Schedules A, B, C and D of the Act, on account of the fiscal year ended Mar. 31, 1929. The sums granted under Schedule B were for loans to the Canadian National Railways and the Canadian Government Merchant Marine, also to meet the payments due under the Maritime Freight Rates Act.

The Income War Tax was amended by c. 12, so as to reduce the income tax payable by individuals or corporations to 80 p.c. of the rate paid in 1926, also by allowing $500 exemption for dependants over 21 years of age incapable of self-support owing to mental or physical infirmity. The same Act was further amended by c. 30, to provide that prosecutions for false statements made on income tax returns or in information supplied by the taxpayer may be instituted within three years from the date of the statement. By c. 50, amending the Special War Revenue Act, the sales tax was reduced from 4 p.c. to 3 p.c. as from Feb. 17, 1928, while the circumstances in which the tax becomes payable were also modified; further, the tax on trust and loan company income was repealed as from Dec. 31, 1927.

By c. 34, the Loan Act, 1928, the raising of loans to an amount of not exceeding $500,000,000 was authorized for paying off or purchasing existing obligations of Canada.

Agriculture.—By c. 19, the Dairy Industry Act was amended in minor details regarding cheese and butter containers. C. 25 amends the Experimental Farm Stations Act by removing the limitation of area in the case of lands to be acquired for farm stations in the Maritime Provinces, the Prairie Provinces and British Columbia. The Fertilizers Act was amended by c. 27, with regard to labelling, guaranteed analysis, percentages of different ingredients required and penalties for offences. C. 33 amends the Live Stock and Live Stock Products Act by providing for a voluntary system of grading beef for domestic consumption. The Seeds Act was amended by c. 47, regarding seed inspection certificates, regulations to be observed in offering seeds for sale, inspection and grading, importation of seeds, etc.

Commerce.—By c. 15, the operation of the Copper Bounties Act of 1923 was extended so as to provide for the continuance of a bounty on the production of copper bars or rods, at the rate of ½c. per lb., from July 1, 1928, to June 30, 1931. The Czechoslovak Convention Act (c. 18) approved the convention of Mar. 15,

1928, providing for most favoured nation treatment by each country of goods produced or manufactured in the other. The Spanish Treaty Act, (c. 49), provides that certain treaties between the United Kingdom and Spain, regarding commerce and navigation, and the treatment of companies, shall apply to Canada. By c. 52, similar treaties of commerce or navigation or agreements of the same character between the United Kingdom and certain other countries granting reciprocal most favoured nation treatment are to apply to Canada when so ordered by the Governor in Council; the countries in question are Estonia, Hungary, Latvia, Lithuania, Portugal, Rumania, the Serb-Croat-Slovene State.

By c. 22, the Electricity Inspection Act of 1928, the previous Act (c. 55, R.S.C., 1927) was repealed. The new Act deals with the commercial unit of supply, the units of electrical measure, inspection standards, the duties of the director and his assistants, and penalties. By c. 40, the Gold and Silver Marking Act is amended to include platinum and articles of platinum within the operation of the Act.

Federal District Commission.—By c. 26, the Federal District Commission Act of 1927 was amended by granting to the Commission the power to sell or lease any of its real property, not being a public park, square or thoroughfare. The Act was further amended in respect of the extension of the period during which annual grants shall be made by the Government. The Minister of Finance may provide the Commission with funds not exceeding in the aggregate $3,000,000 either by negotiating loans on their behalf or by advancing them the money out of the Consolidated Revenue Fund, and the Governor in Council may guarantee such loans, which shall be fully paid up by July 1, 1958. The provisions of the Expropriation Act are to apply to properties required by the Commission.

Immigration.—The Immigration Act was amended by c. 29, to make deportations for certain causes dependent upon conviction in Canada under part 2 of the Criminal Code, rather than upon a hearing before a board of inquiry under the Immigration Act.

Insurance.—By c. 45 the time of application for the benefits of the Returned Soldiers' Insurance Act (10-11 Geo. V, c. 54), was extended to Aug. 31, 1929.

Interior.—By c. 6, the operation of sec. 11 of the Railway Belt Water Act was suspended and sec. 12 repealed. C. 20 amended c. 78, R.S.C., 1927, with respect to the areas included in Dominion forest reserves and parks. By c. 21, the Dominion Lands Act was amended with regard to the extension of homesteading privileges and to the sale of school lands. C. 32 repeals the Lake of the Woods Regulation Act of 1921 and facilitates the provision of storage facilities in Lac Seul through an agreement between the Dominion Government and the Governments of Ontario and Manitoba. By c. 53, the Yukon Quartz Mining Act is amended in respect of rates of royalty, method of ascertaining profits, etc.

Justice.—By c. 9, amending the Supreme Court Act, the dates of the three annual sessions of the Supreme Court of Canada are changed to begin on the first Tuesday in February, the fourth Tuesday in April and the first Tuesday in October respectively. C. 23 amends the Exchequer Court Act with respect to the constitution of the Court, jurisdiction in cases of patents, copyright and trade marks, and rules and orders. By c. 41, the Prisons and Reformatories Act is amended in regard to its application to Nova Scotia.

Marine.—C. 28 authorizes a loan of not to exceed $500,000 to the Halifax Harbour Commission, to be used for the construction of adequate terminal facilities. A loan of not to exceed $8,500,000 to the City of Quebec Harbour Commission for the construction of adequate terminal facilities is authorized by c. 42. A similar loan not to exceed $5,000,000 to the Saint John Harbour Commission for the construction of terminal facilities is provided for by c. 46.

National Defence.—The Royal Military College Act (c. 7) deals with the appointment of the civilian staff of the college in accordance with the provisions of the Civil Service Act, with the qualifications of students and the fees to be paid by them. C. 36 authorizes an annual grant of $75,000 to the National Battlefields Commission at Quebec for ten years from April 1, 1928.

National Revenue.—The Customs Act was amended by c. 16 with regard to vessels found hovering in territorial waters, the definition of territorial waters, importers' books, etc. By c. 17 the Customs Tariff was amended with respect to the rates of duty charged on numerous commodities, also to the rates of drawback. The Excise Act was amended by c. 24 regarding the rates of duty payable by His Majesty in the case of liquor imported by any governmental authority, and the security to be given by a board, commission or other government agency importing liquor. The Department of National Revenue Act was amended by c. 37, regarding the appointment of customs appraisers, officers of the preventive service and investigators of values and claims for drawback.

Patents.—The Patent Act is amended by c. 4, so as to bring it into conformity with the terms of the International Conference for the Protection of Industrial Property. Further, the Trade Mark and Design Act is amended by c. 10, so as to bring the Act into conformity with the decisions of the International Conference referred to above.

Public Printing.—By c. 5, the Public Printing and Stationery Act is amended in respect of the advances to the King's Printer for purchase of materials, execution of orders and requisitions and payment of wages.

Pensions.—The Militia Pension Act was amended by c. 35, in regard to reservations from an officer's salary while in the public service of Canada, to the payment of a gratuity to a widow or children in case of death before pension may be granted, to payment of pensions to militiamen of the army reserve who enlist in the Permanent Force, and to extending the Act to the Royal Canadian Navy and the permanent Air Force. The Pension Act was amended by c. 38 in connection with the change of definitions and other matters dealt with on p. 968 of this volume. The Department of Pensions and National Health Act (c. 39) consolidates the former Departments of Soldiers' Civil Re-establishment and Health under the above name.

Railways.—An agreement between the Canadian Pacific Railway and the Canadian National Railway Co. regarding construction of new lines, running rights, etc., was confirmed by c. 3. C. 8 authorizes an extension of the time within which the Saint John and Quebec Railway Co. is to complete its line from Centreville to Andover; the extension is to May 1, 1930. The Canadian Northern Income Charge Act (c. 11) confirms an arrangement with the holders of 5 p.c. income charge convertible debenture stock of the Canadian Northern Railway Co. By c. 13, the Canadian National Railways Act is amended in regard to the application of the Railway Act to Canadian Government Railways. By c. 43,

the Railway Act is amended with respect to the wider use of the railway grade crossing fund by removing the limit on the number of crossings and increasing the amount which the board may grant for any individual crossing. C. 51 authorizes the C.N.R. to issue debentures not exceeding $10,500,000 to purchase certain securities of the Toronto Terminals Railway Co. and defray a portion of the cost of the viaduct and works required to complete the construction of the terminals.

Temperance.—The Importation of Intoxicating Liquors Act (c. 31), provides that where any province has established a Government monopoly of the liquor traffic, it shall be illegal to import liquors into such province otherwise than through the duly constituted authority.

Acts arising out of the War.—C. 14 provides that the canteen funds accumulated during the war shall be divided between the provinces in accordance with the provisions of c. 34 of the Statutes of 1925. By c. 48, the Soldier Settlement Act is amended with respect to the issue of patents and the revaluation of the land.

Miscellaneous.—By c. 44, certain Orders in Council or Regulations made under the Railway Belt Water Act, the Dominion Forest Reserves and Parks Act, the Dominion Lands Act, the Rocky Mountains Park Act and the Yukon Act, are declared to be valid.

Section 2.—Provincial Legislation, 1928.

Prince Edward Island.

List of the Public Acts of the General Assembly of Prince Edward Island passed during the First Session of the Forty-first General Assembly, begun and holden at Charlottetown on the 20th day of March, 1928.

1. The Road Act, 1928.
2. An Act to Promote the Improvement of Highways.
3. An Act to Provide for the Purchase of Power Road Machinery.
4. An Act to Provide for Newport Ferry-Boat.
5. An Act to Amend the Income and Personal Property Taxation Act.
6. An Act to Amend an Act to Assess, Levy and Collect Taxes on Income and Personal Property.
7. An Act to Amend "The Land Assessment Act, 1924."
8. An Act to Amend an Act to Amend the Land Assessment Act, 1924.
9. An Act to Amend an Act to Provide for the Imposition of a Tax Upon Purchasers of Gasolene.
10. An Act to Amend an Act Respecting the Registration and Operation of Motor Vehicles.
11. An Act to Amend an Act to consolidate and amend various Acts relating to the Prohibition of Intoxicating Liquors.
12. An Act to Amend the Succession Duty Act, 1925.
13. An Act to Amend The Public School Act, 1920, and amendments thereto.
14. An Act to Amend an Act to Further Amend The Trustee Act, 1910.
15. An Act to Amend the County Court Amendment Act, 1878.
16. The Prince Edward Island Fish and Game Protection Act, 1928.
17. An Act to Amend an Act Respecting Certain Departments of the Public Service.
18. An Act to Confirm and Render Valid the Signature of the Deputy Provincial Secretary and Deputy Provincial Treasurer in Certain Cases.
19. An Act to Provide an Annual Grant to Henry Smith on his Retirement from the Office of Clerk of the County of Queen's County, Sixth Circuit.
20. Statute Law Amendments Act, 1928.
21. An Act for Appropriating Certain Monies Therein Mentioned for the Public Service for the Fiscal Year Ending 31st December, 1928, and for the First Part of the Year Ending 31st December, 1929.

Nova Scotia.

List of the Public Acts of Nova Scotia passed in the Third Session of the Thirty-Eighth General Assembly, begun and holden at Halifax on the 14th day of February, 1928.

1. An Act abolishing the Legislative Council and amending the Constitution of the Province.
2. An Act to amend and consolidate Chapter 76, Revised Statutes 1923, "The Motor Vehicle Act."
3. An Act to amend and consolidate the Power Commission Act.
4. An Act to authorize a Provincial Loan to retire maturing Debentures issued under Chapter 60, Acts of 1926.
5. An Act respecting a Provincial Loan for the construction and improvement of Highways.
6. An Act to provide pensions for Public School Teachers.
7. An Act to confer certain powers on a company to be incorporated for the purpose of owning and operating a paper mill in Nova Scotia.
8. An Act to encourage the cultivation of Blueberries.
9. An Act to enable the Provincial Exhibition Commission to sell and convey certain lands.
10. An Act respecting Live Stock and Live Stock Products.
11. An Act to make available an Act of the Parliament of Canada entitled "An Act for the purpose of establishing in Canada a system of Long Term Mortgage Credit for Farmers."
12. An Act providing for the dismissal of Directors of Companies incorporated under the laws of the Province of Nova Scotia.
13. An Act relating to surgical operations at the Victoria General Hospital.
14. An Act "Of the boundaries of Counties, Municipalities, Incorporated Towns and Polling Districts."
15. An Act respecting expenditures by Incorporated Towns for the purpose of celebrating the Jubilee of Confederation.
16. An Act respecting the Provincial Electoral Franchise.
17. An Act to legalize Jury Panels, Assessment Rolls and Revisers' Lists for 1928.
18. An Act to provide for defraying certain charges and expenses of the Public Service of the Province.
19. An Act to amend Chapter 3, Revised Statutes 1923, "The Nova Scotia Franchise Act."
20. An Act to amend Chapter 4, Revised Statutes 1923, "The Nova Scotia Elections Act."
21. An Act to amend Chapter 31, Revised Statutes 1923, "The Sheriffs Act."
22. An Act to amend Chapter 32, Revised Statutes, 1923, "Of the Prothonotaries and Clerks of the Crown".
23. An Act to amend Chapter 34, Acts of 1926, entitled, an Act to amend Chapter 80, Revised Statutes 1923, entitled "Of Ferries".
24. An Act to amend Chapter 48, Revised Statutes 1923, "The Poor Relief Act."
25. An Act to amend Chapter 51, Revised Statutes 1923, "Of the Nova Scotia Hospital."
26. An Act to amend Chapter 60, Revised Statutes 1923, "The Education Act."
27. An Act to amend Chapter 70, Revised Statutes 1923, of the Incorporation of Farmers' Fruit, Produce and Warehouse Associations.
28. An Act to amend Chapter 72, Revised Statutes 1923, "The Provincial Exhibition Act."
29. An Act to amend Chapter 75, Revised Statutes 1923, "The Public Highways Act."
30. An Act to amend Chapter 83, Revised Statutes 1923, "The Municipal Act."
31. An Act to amend Chapter 84, Revised Statutes 1923, "The Towns Incorporation Act."
32. An Act to amend Chapter 84, Revised Statutes 1923, "The Towns Incorporation Act."
33. An Act to amend Chapter 84, Revised Statutes 1923, "The Towns Incorporation Act."
34. An Act to amend Chapter 86, Revised Statutes 1923, "The Assessment Act."
35. An Act to amend Chapter 89, Revised Statutes 1923, "Of Court Houses, Jails and Lockup Houses."
36. An Act to amend Chapter 107, Revised Statutes 1923, entitled "Of the Regulation and Inspection of Provisions, Lumber, Fuel and other Merchandise."
37. An Act to amend Chapter 112, Revised Statutes 1923, "The Barristers and Solicitors Act."
38. An Act to amend Chapter 113, Revised Statutes 1923, "The Medical Act."
39. An Act to amend Chapter 117, Revised Statutes 1923, "The Pharmacy Act."
40. An Act to amend Chapter 128, Revised Statutes 1923, entitled "Of Public Utilities."
41. An Act to amend Chapter 128, Revised Statutes 1923, "The Public Utilities Act."
42. An Act to amend Chapter 129, Revised Statutes 1923, "The Workmen's Compensation Act."
43. An Act to amend Chapter 129, Revised Statutes 1923, "The Workmen's Compensation Act."
44. An Act to amend Chapter 144, Revised Statutes 1923, "Of the Registry of Deeds."
45. An Act to amend the Registry Act, Chapter 144, Revised Statutes, 1923.
46. An Act to amend Chapter 173, Revised Statutes 1923, entitled "Of Domestic and Foreign Companies."

47. An Act to amend Chapter 173, Revised Statutes 1923, "The Domestic, Dominion and Foreign Corporations Act."
48. An Act to amend Chapter 174, Revised Statutes 1923, "The Nova Scotia Companies Act."
49. An Act to amend Chapter 186, Revised Statutes 1923, "Of Miners' Relief Societies."
50. An Act to amend "The County Courts Act."
51. An Act to amend Chapter 218, Revised Statutes 1923, entitled "The Municipal Courts Act" and the Halifax City Charter.
52. An Act to amend Chapter 219, Revised Statutes 1923, "Of Civil Procedure in Justices' Courts."
53. An Act to amend Chapter 223, Revised Statutes 1923, "The Juries Act."
54. An Act to amend Chapter 224, Revised Statutes 1923, "The Nova Scotia Summary Convictions Act."
55. An Act to amend Chapter 252, Revised Statutes 1923, "The Costs and Fees Act."
56. An Act to amend Chapter 32, Acts of 1919, "The Judicature Act."
57. An Act to amend Chapter 4, Acts of 1926, "The Lands and Forests Act."
58. An Act to amend Chapter 8, Acts of 1926, An Act respecting the laying out of Private Ways.
59. An Act to amend Chapter 10, Acts of 1927, entitled, "An Act to Standardize Fire Hose Couplings".

New Brunswick.

List of the Public Acts of the Legislative Assembly of New Brunswick, begun and holden at Fredericton on the 23rd day of February, 1928.

1. An Act to provide for defraying certain expenses of the Civil Government of the Province.
2. An Act to provide for the repair and improvement of roads and bridges and other public works and services.
3. An Act to amend the Intoxicating Liquor Act, 1927, being Chapter 28 of the Revised Statutes of New Brunswick, 1927.
4. An Act to amend Chapter 1 of The Revised Statutes, 1927, Respecting the form and interpretation of Statutes.
5. An Act to amend Chapter 13 of The Revised Statutes of New Brunswick, 1927, "The Audit Act."
6. An Act to amend Chapter 19 of The Revised Statutes of New Brunswick, 1927, Respecting Taxes on Life Insurance Agents.
7. An Act to amend Chapter 24 of The Revised Statutes, 1927, Respecting the generation and distribution of Electric Power.
8. An Act to amend Chapter 25, Revised Statutes, 1927, "The Highway Act."
9. An Act to amend Chapter 52, The Revised Statutes, 1927, "The Schools Act."
10. An Act to amend Chapter 56 of The Revised Statutes, 1927, Respecting payment of Pensions and Disability allowance to Public School Teachers and Officials.
11. An Act to amend Chapter 59 of The Revised Statutes, 1927, being An Act Respecting Public Health.
12. An Act to amend Chapter 62 of The Revised Statutes, 1927, Respecting Local Sanitariums.
13. An Act to amend Chapter 66, The Revised Statutes, 1927, Respecting a Provincial Police Force.
14. An Act to amend Chapter 95, Revised Statutes, 1927, "The Women's Institute Act."
15. An Act to amend Chapter 100 of The Revised Statutes, 1927, Respecting the Suppression of Fires.
16. An Act to amend Chapter 109 of The Revised Statutes, 1927, "Respecting the Inter-Provincial Home."
17. An Act to amend Chapter 121 of The Revised Statutes 1927, "The Local Courts Act."
18. An Act to amend Chapter 125 of The Revised Statutes, 1927, "The Summary Convictions Act."
19. An Act to amend Chapter 127 of The Revised Statutes, 1927, Respecting the Board of Commissioners of Public Utilities.
20. An Act to amend Chapter 159, The Revised Statutes, 1927, "The Factories Act."
21. An Act to amend Chapter 169 of The Revised Statutes, 1927, "Respecting Landlord and Tenant."
22. An Act to amend Chapter 180 of The Revised Statutes, 1927, "The Village Incorporation Act."
23. An Act to amend Chapter 191 of The Revised Statutes, 1927, Respecting Taxation of The New Brunswick Telephone Company, Limited.
24. An Act to amend Chapter 205 of The Revised Statutes, 1927, entitled "Respecting Municipal Homes."
25. An Act to amend Chapter 206 of The Revised Statutes, 1927, "The Illegitimate Children's Act."

26. An Act to amend "The Crown Lands Act."
27. An Act to amend "The Mining Act, 1927."
28. An Act to amend "The Game Act."
29. An Act to amend the "Gasolene Tax Act."
30. An Act to amend the "Motor Vehicle Act."
31. An Act to provide for the redemption of $1,700,000.00 Provincial Debentures falling due in the year 1928.
32. An Act to provide for the redemption of $1,000,000.00 Provincial Debentures falling due in the year 1928.
33. An Act to provide for the redemption of $575,000.00 Provincial Debentures falling due in the year 1928.
34. An Act to provide for the issue of Debentures for the construction and equipment of a Provincial Building at the University of New Brunswick for the Departments of Forestry and Mineralogy and for a Library.
35. An Act to amend the Act 17 George V, (1927) Chapter 25, intituled "An Act to confirm the purchase of certain real estate in the City of Saint John and provide for the payment therefor."
36. An Act to provide for certain expenditures in connection with the Jordan Memorial Sanitarium.
37. An Act relating to the construction of highways.
38. An Act to make legal certain investments made by Trustees in Debentures issued by the Canada Permanent Mortgage Corporation.
39. An Act Respecting the Training and Employment of the Adult Blind.
40. An Act to authorize the issue of Grants of certain Crown Lands to Pembroke Northrup and others in the County of Queens.
41. An Act to amend Chapter 159 of the Consolidated Statutes, 1903, Respecting Sewers and Marsh Lands.
42. An Act to confirm a Grant of certain Crown Lands to Alexander Pratt and William K. Swim.
43. An Act to make available an Act of the Parliament of Canada entitled "An Act for the purpose of establishing in Canada a system of long term mortgage credit for Farmers."
44. An Act relating to the live stock and live stock products of New Brunswick.
45. An Act to make better provision for furthering British Settlement in the Province of New Brunswick.
46. An Act to amend an Act to provide for the extension of time for the building of the Saint John and Quebec Railway to Andover.
47. An Act to provide for references by the Governor-in-Council to the Appeal Division of the Supreme Court.
48. An Act in amendment of the Act 15 George V, Chapter 23, an Act to authorize the sale of the Saint John and Quebec Railway to the Dominion of Canada.
49. An Act to provide for the payment of an annuity to Gertrude Hayward, widow of the late Russell P. Hayward.

Quebec.

List of the Public Acts of the Province of Quebec passed in the First Session of the Seventeenth Legislature, begun and holden at Quebec the 10th day of January, 1928.

1. An Act granting to His Majesty the monies required for the expenses of the Government for the financial years ending on the 30th of June, 1928, and on the 30th of June, 1929, and for other purposes connected with the public service.
2. An Act respecting the repatriation of Canadians in the Province of Quebec.
3. An Act respecting the Court House of the District of Quebec.
4. An Act to authorize the enlargement of the Gaol of the district of Chicoutimi.
5. An Act to amend the Act 17 George V, chapter 6, respecting the enlargement of the Court House and Gaol of the judicial district of Abitibi.
6. An Act to amend the Act 17 George V, chapter 7, authorizing the erection of a Court House and Gaol at Ville-Marie.
7. An Act to amend the Act 17 George V, chapter 8, authorizing the erection of a Court House and Gaol at Rouyn.
8. An Act to provide for the construction and maintenance of a bridge over the Richelieu river.
9. An Act to validate by-law No. 261 of the City of Grand'Mère, respecting the building of a bridge over the river St. Maurice, and to authorize a contract between the Government of this Province and the said corporation for that purpose.
10. An Act to change the chief place of the county of Témiscouata and to establish it in the city of Rivière du Loup.
11. An Act to amend the act respecting the changing of the chief place of the judicial district of Pontiac.
12. An Act to amend the Legislature Act and the Executive Power Act.

13. An Act to amend the Court of King's Bench Reference Act.
14. An Act to amend the Quebec License Act.
15. An Act to amend the Security Transfer Tax Act.
16. An Act to amend the Property Transfer Duty Act.
17. An Act to amend the Quebec Succession Duties' Act.
18. An Act to amend the act 16 George V, chapter 55.
19. An Act to amend the Beneficiaries Seizin Act.
20. An Act respecting the consolidation and disposition of certain revenues.
21. An Act to amend the Motor Vehicle Act.
22. An Act to amend the Motor Vehicle Ownership Rights' Act.
23. An Act to amend the Gasolene Act.
24. An Act to amend the Alcoholic Liquor Act, respecting the pension of the chairman of the Commission.
25. An Act to amend the Alcoholic Liquor Act.
26. An Act to amend the Lands and Forests Act with respect of timber limits.
27. An Act to amend the Lands and Forests Act.
28. An Act to amend the Quebec Cullers' Act.
29. An Act to amend the Water-Course Act.
30. An Act respecting Farm Loans.
31. An Act to amend the Act 17 George V, chapter 25, respecting Live Stock and Live Stock Products.
32. An Act to amend the Quebec Mining Act.
33. An Act to amend the Game Laws.
34. An Act respecting the sale of fish in the Province.
35. An Act to amend the Roads' Act.
36. An Act to amend section 75 of the Roads' Act.
37. An Act to amend the Cities and Towns' Act.
38. An Act to amend the Cities and Towns' Act respecting the approval, by secret ballot, of certain by-laws by the electors.
39. An Act to amend the Municipal Debt and Loan Act.
40. An Act to amend the Municipal Works Act.
41. An Act to amend the Public Building Municipal Regulation Act.
42. An Act to amend the Amusement Tax Act.
43. An Act to amend the Peddlers' Act.
44. An Act to amend the Education Act.
45. An Act respecting the consolidation of floating debts of school municipalities.
46. An Act respecting the Order of Scholastic Merit.
47. An Act to amend the Technical or Professional Schools Act.
48. An Act respecting a certain subsidy to *Les Ecoles Ménagères Provinciales*.
49. An Act respecting the Montreal Catholic School Commission.
50. An Act to amend the act incorporating the Montreal Catholic School Commission.
51. An Act to amend the act respecting Protestant schools in and around the city of Montreal.
52. An Act to amend the law respecting the Montreal Protestant Central School Board, as regards the school commissioners for the municipality of *Très Saint-Sacrement*, in the county of Jacques-Cartier.
53. An Act to exempt the school commissioners for the municipality of the city of Outremont, in the county of Westmount and Montreal-Laurier, from the effect of certain acts.
54. An Act to amend the acts respecting the Board of Roman Catholic School Commissioners of the City of Quebec.
55. An Act to amend the Provincial Museum Act.
56. An Act to amend the Courts of Justice Act respecting the concurrent jurisdiction of the Courts in the judicial districts of Kamouraska, Rimouski and Saguenay.
57. An Act to amend the Courts of Justice Act respecting district magistrates.
58. An Act to amend the Magistrate's Privilege Act.
59. An Act to amend the Jury Act.
60. An Act to amend the Moving Picture Act.
61. An Act to amend the Public Building Safety Act.
62. An Act respecting the protection of public buildings against fire.
63. An Act to amend the Revised Statutes, 1925, respecting the sale and installation of lightning rods.
64. An Act to amend the Fire Investigation Act.
65. An Act to amend the Fire Prevention Act.
66. An Act to amend the Fire Prevention Act.
67. An Act to amend the Industrial Establishments Act.
68. An Act to amend the Quebec Public Health Act.
69. An Act respecting the creation and maintenance of Provincial Health Units.
70. An Act to amend the Forest Engineers' Act.
71. An Act to amend the Special Corporate Powers Act with respect to certain registrations.
72. An Act to amend the Special Corporate Powers Act.

73. An Act respecting the sale of tickets by railway companies.
74. An Act to amend the Toll Bridges and Turnpike Roads Abolition Act.
75. An Act to amend the Quebec Insurance Act.
76. An Act to amend the Seigniories' Act.
77. An Act respecting seigniorial dues in this Province.
78. An Act to amend the Agricultural Abuses Act.
79. An Act respecting Workmen's Compensation.
80. An Act respecting the Workmen's Compensation Commission.
81. An Act to amend the Revised Statutes, 1925, respecting Daylight Saving.
82. An Act to amend article 44 of the Civil Code.
83. An Act to amend the Civil Code respecting registers of civil status.
84. An Act to amend the Civil Code respecting incapable persons.
85. An Act to amend article 953*a* of the Civil Code.
86. An Act to validate certain registrations in the registration division of Bellechasse.
87. An Act to validate certain registrations in the registration division of Montmagny.
88. An Act to validate certain registrations in the registration division of St. Hyacinthe.
89. An Act respecting certain registrations in the registration division of Laval.
90. An Act to amend article 72*a* of the Code of Civil Procedure.
91. An Act to amend article 598 of the Code of Civil Procedure.
92. An Act to amend article 599 of the Code of Civil Procedure respecting sums of money and pensions given as alimony.
93. An Act to amend the Code of Civil Procedure and the Revised Statutes, 1925, respecting appeals to the Court of King's Bench.
94. An Act to amend the Municipal Code.
95. An Act to amend article 36 of the Municipal Code.

Ontario.

List of the Public Acts of the Province of Ontario passed in the Second Session of the Seventeenth Legislature of Ontario, begun and holden at Toronto on the 9th day of February, 1928.

1. An Act for granting to His Majesty certain sums of money for the Public Service of the financial year ending on the 31st day of October, 1928, and for the Public Service of the financial year ending the 31st day of October, 1929.
2. An Act to confirm the Revised Statutes of Ontario, 1927.
3. An Act to amend The Election Act.
4. An Act to amend The Controverted Elections Act.
5. An Act to amend The Public Service Act.
6. An Act for Raising Money on the Credit of the Consolidated Revenue Fund.
7. An Act to amend The Succession Duty Act.
8. An Act to amend The Provincial Land Tax Act.
9. An Act to amend The Public Lands Act.
10. An Act respecting Relief to Settlers in Northern Ontario.
11. An Act to amend The Lakes and Rivers Improvement Act.
12. An Act respecting Lac Seul Storage.
13. An Act to amend The Colonization Roads Act.
14. An Act to amend The Crown Timber Act.
15. An Act to make Better Provision for Regulating the Cutting of Timber on Public Lands.
16. An Act to amend The Mining Act.
17. An Act to provide for the Extension of University Avenue in the City of Toronto.
18. An Act to amend The Highway Improvement Act.
19. An Act to amend The Power Commission Act.
20. An Act respecting Certain Lands of the Canadian General Electric Company, Limited, in the County of Welland.
21. The Statute Law Amendment Act, 1928.
22. An Act to amend The Estreats Act.
23. An Act to amend The Trustee Act.
24. An Act to amend The Bulk Sales Act.
25. An Act respecting the Training of Apprentices.
26. An Act to amend The Workmen's Compensation Act.
27. An Act to amend The Marriage Act.
28. An Act to amend The Children of Unmarried Parents Act.
29. An Act to amend The Adoption Act.
30. An Act to amend The Landlord and Tenant Act.
31. An Act respecting Embalmers and Funeral Directors.
32. An Act to amend The Companies Act.
33. An Act respecting Information Concerning Companies.
34. An Act for the Prevention of Fraud in connection with the Sale of Securities.
35. An Act to amend The Insurance Act.
36. An Act to amend The Loan and Trust Corporations Act.

37. The Municipal Amendment Act, 1928.
38. An Act to amend The Local Improvement Act.
39. An Act to amend The Assessment Act.
40. An Act to amend The Municipal Arbitrations Act.
41. An Act to amend The Public Utilities Act.
42. An Act to amend The Highway Traffic Act.
43. An Act to amend The Public Vehicle Act.
44. An Act to amend The Liquor Control Act (Ontario).
45. An Act to amend The Public Health Act.
46. An Act to amend The Children's Protection Act.
47. An Act to amend The Mothers' Allowances Act.
48. An Act to amend The Juvenile Courts Act.
49. An Act to amend The Boys' Welfare Home and School Act.
50. An Act to amend The Protection of Cattle Act.
51. An Act to amend The Weed Control Act.
52. An Act to amend The Game and Fisheries Act.
53. The School Law Amendment Act, 1928.
54. An Act respecting the Acquisition of Land for School Purposes.
55. An Act to vest certain lands in His Majesty.
56. An Act to make further provision for the University of Western Ontario.
57. An Act to establish a Research Foundation in Ontario.
58. An Act respecting the Toronto General Hospital.
59. An Act to amend The Hospitals and Charitable Institutions Act.

Manitoba.

List of the Public Acts of the Legislature of the Province of Manitoba passed in the First Session of the Eighteenth Legislature, begun and holden at Winnipeg, on the 1st day of December, 1927, and closed by prorogation on the 16th day of March, 1928.

1. Agricultural and Immigration Act.
2. Agricultural Societies Act.
3. Boundary of the Province of Manitoba. (new)
4. Child Welfare Act.
5. Companies Act (1).
6. Companies Act (2).
7. Compensation for Damage Caused by Mining, Smelting and Refining Operations. (new)
8. County Courts Act.
9. Court of King's Bench Act.
10. Courts, Surrogate Act (1).
11. Courts, Surrogate Act (2).
12. Crop Payments Act.
13. Debts Due the Crown. (new)
14. Distress Act.
15. Evidence Act.
16. Farm Implement Act.
17. Farm Loan Act (Canadian). (new)
18. Fires Prevention Act.
19. Flin Flon Mines.
20. Good Roads Act.
21. Health and Public Welfare. (new)
22. Home for the Aged and Infirm Act.
23. Horse Breeders Act.
24. Hospital Aid Act.
25. Insurance Policy Act—Accident and Sickness.
26. Insurance Policy Act—Automobile.
27. Interpretation Act.
28. Jury Act.
29. Land Drainage Act.
30. Legislative Assembly Act.
31. Liquor—An Act to provide for Government Control and Sale of. (new)
32. Liquor—Government Control Act.
33. Livestock Breeding. (new)
34. Lunacy Act.
35. Magistrates Act.
36. Manitoba Sanatorium Act.
37. Manitoba Sanatorium Act. (new)
38. Marriage Act.
39. Medical Act.
40. Mental Diseases Act.

41. Mines Act.
42. Mines and Natural Resources. (new)
43. Municipal and Public Utility Board Act.
44. Old Age Pensions Act. (new)
45. One Day of Rest in Seven for Certain Employees. (new)
46. Protection of Investors Act. (new)
47. Public Health Act.
48. Public Schools Act.
49. Public Works Act.
50. Real Property Act (Caveat) (1).
51. Real Property Act (Caveat) (2).
52. Real Property Act (Caveat) (3).
53. Real Property Act (Caveat) (4).
54. Real Property Act (Caveat) (5).
55. Real Property Act (Caveat) (6).
56. Real Property Act (Caveat) (7).
57. Real Property Act (Caveat) (8).
58. Real Property Act (Caveat) (9).
59. Repair Shops Act.
60. Seed Grain (Annual Act).
61. Small Debts Recovery Act.
62. Suitors' Fund Act.
63. Summary Convictions Act.
64. Supplementary Revenue Act.
65. Supply (Supplemental—year ending 30th April, 1928).
66. Supply (Main Estimates).
67. Supply (Capital).
68. Supply (Supplemental—year ending 30th April, 1929).
69. University Amendment Act.
70. Vital Statistics Act.

Saskatchewan.

List of the Public Acts of the Province of Saskatchewan passed in the Fourth Session of the Sixth Legislature, begun and holden at Regina on the 4th day of December, 1928 and closed by prorogation on the 2nd day of February, 1929.

1. An Act for granting to His Majesty certain sums of Money for the Public Service of the Fiscal Year ending the Thirtieth day of April, 1929.
2. An Act for granting to His Majesty certain sums of Money for the Public Service of the Fiscal Year ending the Thirtieth day of April, 1930.
3. An Act to establish a Power Commission.
4. An Act respecting the Licensing of Electrical Supply Houses, Contractors and Journeyman Electricians.
5. An Act to validate and confirm a Certain Agreement between the City of Saskatoon and His Majesty the King in the Right of the Province of Saskatchewan.
6. An Act respecting Inquiries concerning Public Matters.
7. An Act to amend The Provincial Secretary's Act.
8. An Act to amend The Treasury Department Act.
9. An Act to amend The Highways Act.
10. An Act to amend The Local Government Board Act.
11. An Act to amend The Corporations Taxation Act.
12. An Act to amend The Travelling Shows Act.
13. An Act to amend The King's Bench Act.
14. An Act to amend The District Courts Act.
15. An Act to amend The Surrogate Courts Act.
16. An Act to amend The Court Officials Act.
17. An Act to amend The Jury Act.
18. An Act respecting Suits against the Crown by Petition of Right.
19. An Act to amend The Exemptions Act.
20. An Act to amend The Creditors Relief Act, 1923.
21. An Act to amend The Magistrates Act.
22. An Act to amend The Saskatchewan Provincial Police Act.
23. An Act respecting Land and the Title thereto.
24. An Act to amend The Devolution of Real Property Act, 1928.
25. An Act respecting Applications to Court for Relief by Widows.
26. An Act to amend The Wills Act.
27. An Act to amend The Trustee Act.
28. An Act respecting Companies.
29. An Act respecting Water, Gas and Electric Companies.
30. An Act to amend The Saskatchewan Insurance Act, 1925.

31. An Act to amend The City Act, 1926.
32. An Act to amend The Town Act, 1927.
33. An Act to amend The Village Act, 1928.
34. An Act respecting Rural Municipalities.
35. An Act to amend The Local Improvement Districts Act, 1927.
36. An Act to amend The Public Libraries Act.
37. An Act to amend The Rural Telephone Act.
38. An Act to amend The Municipal Hail Insurance Act.
39. An Act to amend The Arrears of Taxes Act, 1926.
40. An Act to amend The Town Planning Act, 1928.
41. An Act to repeal The Urban Municipal Housing Act.
42. An Act respecting the Town of Bredenbury.
43. An Act respecting the Town of Kerrobert.
44. An Act respecting the Rural Municipality of Wolverine No. 340.
45. An Act to amend The School Act.
46. An Act to amend The School Assessment Act.
47. An Act to amend The School Grants Act, 1920.
48. An Act to amend The Co-operative Associations Act, 1928.
49. An Act to amend The Horse Breeders Act.
50. An Act to amend The Pure Bred Sire Areas Act, 1927.
51. An Act to amend The Dairy Products Act.
52. An Act to amend The Noxious Weeds Act, 1924.
53. An Act to facilitate the Adjustment of Agricultural Debts.
54. An Act respecting the Saskatchewan Association of Architects.
55. An Act to amend The Optometry Act, 1924.
56. An Act respecting Drugless Practitioners.
57. An Act to amend The Hawkers and Pedlers Act.
58. An Act to amend The Produce Merchants Act.
59. An Act to amend The Fire Prevention Act.
60. An Act to amend The Public Health Act, 1924.
61. An Act respecting Sanatoria and Hospitals for the Treatment of Tuberculosis.
62. An Act to amend The Vehicles Act, 1924.
63. An Act to amend The Minimum Wage Act.
64. An Act to amend The Old Age Pension Act, 1928.
65. An Act to amend The Child Welfare Act, 1927.
66. An Act to amend The Liquor Act, 1925.
67. An Act to amend The Liquor Act, 1925 (No. 2).
68. An Act for the Prevention of Fraud in connection with the Sale of Securities.
69. An Act to make Uniform the Law respecting Bills of Sale and Chattel Mortgages.
70. An Act to make Uniform the Law respecting Assignments of Book Debts.
71. An Act to amend The Conditional Sales Act.
72. An Act to amend The Mechanics' Lien Act.
73. An Act to provide for Compensation to Workmen for Injuries sustained in the Course of their Employment.
74. An Act to amend The Union Hospital Act, 1928.
75. An Act to amend The Deferred Charges Act, 1923.
76. An Act to amend The Telephone Department Superannuation Act, 1928.
77. An Act to provide Compensation for Damage caused by Mining, Smelting and Refining Operations.
78. An Act respecting The Saskatchewan Co-operative Creameries, Limited.
79. An Act to amend An Act respecting the Winding up of the Saskatchewan Co-operative Elevator Company, Limited.

Alberta.

List of the Public Acts of the Province of Alberta passed in the Second Session of the Sixth Legislative Assembly, begun and holden at Edmonton on the 2nd day of February, 1928, and closed on the 21st day of March, 1928.

1. An Act for Granting to His Majesty Certain Sums of Money for the Public Service for the Fifteen Months Ending March 31st, 1928, and for the Year Ending March 31st, 1929.
2. An Act for Raising Money on the Credit of the General Revenue Fund of Alberta.
3. An Act to amend The Treasury Department Act.
4. An Act respecting The Canadian Farm Loan Act, 1927, being Chapter 43 of the Statutes of Canada, 1926-27.
5. An Act to make Provision for the Supervision of Co-operative Marketing Associations and Co-operative Societies.
6. An Act to confirm an agreement between His Majesty the King and the Canada Land and Irrigation Company, Limited.

7. An Act to Regulate the Sale and Installation of Lightning Rods.
8. An Act to amend The Agricultural Societies Act.
9. An Act to amend The Bee Diseases Act, 1924.
10. An Act to amend The Domestic Animals (Unorganized Territory) Act.
11. An Act to amend The Noxious Weeds Act.
12. An Act to amend The Game Act.
13. An Act respecting The Alberta Women's Bureau.
14. An Act to amend The Live Stock and Live Stock Products Act (Alberta).
15. An Act for the Improvement of Stock-breeding.
16. An Act respecting the Devolution of the Real Property of Deceased Persons.
17. An Act respecting the Distribution of Estates of Intestates.
18. An Act to amend The Interpretation Act.
19. An Act to amend The Legal Profession Act.
20. An Act to amend The Children of Unmarried Parents Act.
21. An Act to amend The Partnership Act.
22. An Act to amend The Jury Act.
23. An Act to amend The Sale of Goods Act.
24. An Act to amend An Ordinance to Incorporate "Les Soeurs de Charité de la Providence des Territoires du Nord-Ouest."
25. An Act to amend The Domestic Relations Act, 1927.
26. An Act to amend The Conditional Sales Act.
27. An Act to amend The Bills of Sale Act.
28. An Act to amend The Government Liquor Control Act of Alberta.
29. An Act to amend The Land Titles Act.
30. An Act respecting Legitimation by Subsequent Marriage.
31. An Act to amend The Police Pension Act, 1921.
32. An Act to Provide a Board to Deal with the Discipline of Professions.
33. An Act to amend The Medical Profession Act.
34. An Act to amend The Private Hospitals Act.
35. An Act to amend The Municipal Hospitals Act.
36. An Act to amend The Solemnization of Marriage Act.
37. The Sexual Sterilization Act.
38. An Act to amend The Workmen's Compensation Act (Accident Fund).
39. An Act to amend The Minimum Wage Act, 1925.
40. An Act to amend The Boilers Act.
41. An Act to amend The Building Trades Protection Act.
42. An Act respecting The Industrial Disputes Investigation Act of Canada and Labour Disputes within the Jurisdiction of the Province.
43. An Act to amend The Woodmen's Lien Act.
44. An Act respecting Research into the Natural Resources of the Province.
45. An Act to amend The Public Utilities Act, 1923.
46. An Act for the Better Securing of the Payment of Wages to Workers in Coal Mines.
47. An Act respecting the Provincial Status of the Royal Canadian Mounted Police.
48. An Act to Facilitate Town Planning and the Preservation of the Natural Beauties of the Province.
49. An Act to amend The Improvement Districts Act, 1927.
50. An Act to amend The Municipal District Act.
51. An Act to amend The Village Act.
52. An Act to amend The Town Act, 1927.
53. An Act to amend The Tax Consolidation Act, 1927.
54. An Act to amend The Municipal Ordinance.
55. An Act to amend The Theatres Act.
56. An Act to amend The Public Works Act.
57. An Act to amend The Public Works Department Act.
58. An Act to amend The Vehicles and Highways Traffic Act, 1924.
59. An Act to amend The Public Vehicles Act, 1927.
60. An Act to amend The Pipe Line Act.
61. An Act to amend The Fatal Accidents Act.
62. An Act to provide for the Extension of the Grande Prairie Branch of the Edmonton, Dunvegan and British Columbia Railway.
63. An Act to amend An Act to Incorporate the Central Canada Railway Company.
64. An Act to amend An act to Incorporate the Central Canada Railway Company, No. 2.
65. An Act to provide for the Extension of the Central Canada Railway.
66. An Act to amend The Pembina Valley Railway Act.
67. An Act to amend The Railway Act.
68. An Act to amend the Acts relating to the Incorporation of the Lacombe and Northwestern Railway.
69. An Act respecting the Sale of the Lacombe and Northwestern Railway Company.
70. An Act respecting certain Common Stock of the Lacombe and Northwestern Railway Company.
71. An Act to amend The Irrigation Districts Act.

British Columbia.

List of Public Acts of the Province of British Columbia passed in the Fourth Session of the Sixteenth Parliament of British Columbia, begun and holden at Victoria, on the 24th January, 1928, and ending on the 14th March, 1928.

1. An Act to amend the "Abbotsford School District Act."
2. An Act to amend the "Architects Act."
3. An Act relating to The Corporation of the District of Burnaby.
4. An Act respecting Canadian Farm Loans.
5. An Act to amend the "Civil Service Act."
6. An Act to amend the "Trust Companies Act."
7. An Act for the Relief of The Corporation of the District of Coquitlam.
8. An Act to amend the "Coroners Act."
9. An Act to amend the "Counties Definition Act."
10. An Act to amend the "Small Debts Courts Act."
11. An Act to amend the "Duncan and North Cowichan Schools Act, 1922."
12. An Act to amend the "Provincial Elections Act."
13. An Act to amend the "Electrical Energy Inspection Act."
14. An Act to amend the "Fire Marshal Act."
15. An Act to amend the "Forest Act."
16. An Act to amend the "Game Act."
17. An Act to include the Inhabitants of The Corporation of The District of South Vancouver and the Corporation of Point Grey, and the Respective Areas thereof, within the City of Vancouver.
18. An Act to amend the "Infants Act."
19. An Act to amend the "Insurance Act."
20. An Act to amend the "Land Settlement and Development Act."
21. An Act to amend the "Land Act."
22. An Act to borrow the Sum of Four million Dollars for the Purposes therein specified.
23. An Act to amend the "Pacific Great Eastern Construction Loan Act, 1921."
24. An Act to borrow the Sum of Four Million Six Hundred Thousand Dollars for the Purposes therein specified.
25. An Act to amend the "British Columbia Loan Act, 1921."
26. An Act to amend the "British Columbia Loan Act, 1921 (Second Session)."
27. An Act to amend the "Mechanics' Lien Act."
28. An Act to amend the "Milk Act."
29. An Act to amend the "Coal and Petroleum Act."
30. An Act to amend the "Coal-mines Regulation Act."
31. An Act to amend the "Motor-vehicle Act."
32. An Act to amend the "Municipal Act."
33. An Act to amend the "Municipalities Aid Act."
34. An Act to amend the "Municipalities Incorporation Act."
35. An Act to amend the "Village Municipalities Act.
36. An Act to amend the "Notaries Act."
37. An Act to amend the "Optometry Act."
38. An Act to amend the "Provincial Parks Act."
39. An Act to amend the "Produce Marketing Act."
40. An Act for the Relief of The Corporation of the City of Revelstoke.
41. An Act to amend the "Live Stock and Live-stock Products Act (British Columbia)."
42. An Act to provide Relief for the Sumas Drainage, Dyking and Development District.
43. An Act to amend the "Superannuation Act."
44. An Act for granting certain Sums of Money for the Public Service of the Province of British Columbia.
45. An Act to provide for the Imposition and Collection of a Tax on Gasolene.
46. An Act to amend the "Poll-tax Act."
47. An Act to amend the "Taxation Act."
48. An Act to amend the "Town Planning Act."
49. An Act to provide for the Appointment of Trade Licence Boards.
50. An Act to amend the "United Church of Canada Act."
51. An Act to amend the "University Endowment Lands Administration Act."
52. An Act to amend the "British Columbia University Act."
53. An Act to amend the "Vancouver and Districts Joint Sewerage and Drainage Act."
54. An Act to amend the "Semi-monthly Payment of Wages Act."
55. An Act to amend the "Water Act."
56. An Act to amend the "Woodmen's Lien for Wages Act.".

Section 3.—Principal Events of the Year, 1928.

The Economic and Financial Year.—As judged by its statistics, the year 1928 showed remarkable progress, and was probably the most prosperous in the history of the Dominion. In agriculture, the area sown to field crops was estimated at 59,410,000 acres, as compared with 56,172,000 acres in 1927 and 53,108,000 acres in 1925. The wheat crop, at 533,572,000 bushels, exceeded the previous record crop of 1927 by 53,907,000 bushels. The barley crop of 136,391,000 bushels was 36,404,000 bushels larger than the previous record crop of 1926. The exports of wheat in the calendar year were 365,428,000 bushels valued at $433,767,578, and of wheat flour, 10,737,266 barrels valued at $63,973,066, altogether the equivalent of a total export of 413,745,000 bushels of wheat. The gross annual agricultural revenue of $1,730,300,000 was $50,000,000 less than in 1927, owing to lower prices of field crops and of tobacco.

The mining industry also showed remarkable activity, the production of 1928 reaching $273,446,000 or over $26,000,000 more than the previous record figure of 1927. Forestry, as represented by the great pulp and paper industry, had also a banner year, the production of newsprint reaching 2,382,000 tons as compared with 2,082,000 in 1927; the exports of newsprint paper were 2,206,588 tons valued at $141,103,527. The yield of the fisheries was provisionally estimated to be worth $54,000,000, surpassed only once in time of peace. The central electric station industry also showed great progress, the developed water powers of the Dominion increasing from 4,778,000 horse power to 5,349,000 horse power during the year. Manufactures were also more active than in any previous year since the war, the index number of employment in manufacturing industries reaching 110·1 in 1928, as compared with 103·4 in 1927 and 99·6 in 1926. This manufacturing activity was also reflected in the construction industry, where the total contracts awarded reached $472,000,000—the highest figure on record.

The external trade of Canada also reached in 1928 the very high total of $2,596,448,000, including $1,222,318,000 of imports, $1,349,751,000 of Canadian exports and $24,379,000 of foreign exports. Again, transportation activities were remarkable, the railway carloadings being 3,697,000 cars or 300,000 cars more than in 1927. The aggregate operating earnings of the larger railways were also up at $557,793,000 as compared with $499,749,000 in 1927. Canal traffic through Canadian canals was 18,719,723 tons, as compared with 17,488,311 tons in 1927.

Prices moved slightly downward during the year, averaging 96·5 as compared with 97·7 in 1927 and 100 in 1926. This decline was common to most of the chief component material groups of commodities, but animals and their products constituted an exception.

The assets of the chartered banks reached $3,469,700,694 on Dec. 31, 1928, as compared with $3,231,658,305 at the corresponding date of 1927. The notice deposits in these banks were $1,520,285,026 as compared with $1,444,528,540. Life insurance in companies chartered by the Dominion reached $5,609,000,000 at the end of 1928, as compared with $5,044,000,000 at the end of 1927. The total of bank debits to individual accounts totalled $43,477,000,000 in 1928 as compared with $36,093,000,000 in 1927 and $27,157,000,000 in 1924, the earliest year for which this record is available. As related to this figure, it may be pointed out that the index number of employment in wholesale and retail trade averaged 116·1 in 1928, as against 107·4 in 1927 and 99·2 in 1926.

Provincial General Elections.—A general election was held in British Columbia on July 18, resulting in the defeat of the Liberal Ministry of Hon. J. D. MacLean, and the assumption of office by the Conservatives under Hon. S. F. Tolmie.

In Nova Scotia, the Government of Hon. E. N. Rhodes was returned to office by a reduced majority at an election held on Oct. 1.

Canada and the League of Nations.—In view of the honour conferred upon Canada by her election to the Council of the League of Nations in September, 1927, it was decided that in 1928 she should be represented on that Council by her Prime Minister. Accordingly the Rt. Hon. W. L. Mackenzie King represented the Dominion at the sessions of the Council and the Assembly of the League of Nations in September, 1928, and was elected a vice-president of the League. While in Europe Mr. King opened the Canadian Legation in Paris.

Diplomatic Appointments.—The first British High Commissioner to Canada, Sir Wm. H. Clark, was appointed on April 23, and took up his duties on Sept. 22. The first French Minister to Canada, M. Georges Jean Knight, presented his credentials on Nov. 16 and Japan opened her legation in Ottawa on July 20. The Hon. Philippe Roy was appointed Canadian Minister to France on Sept. 24, and Hon. Herbert Marler has been designated as Canadian Minister to Japan.

Obituary, 1928.—May 12, Joseph P. Foley, K.C., Winnipeg, Man., ex-M.L.A., Manitoba. May 20, Philippe Pelletier, Ottawa, Ont., former Assistant Under-Secretary of State. June 2, Hon. Charles W. Cross, K.C., Edmonton, Alta., first Attorney-General of Alberta. June 14, Dr. A. G. Clark, Ottawa, Ont., Assistant Deputy Minister of Dominion Health Department. June 27, Hon. Louis P. Normand, M.D., Three Rivers, Que., former Minister in the Meighen Government. July 4, Hormisdas Mayrand, St. Leon, Que., ex-M.P., Maskinongé, Que. July 23, Hon. G. B. V. Bulyea, first Lieutenant-Governor of Alberta and later Chairman of the Alberta Utilities Board. Matthew Lodge, Director, Canadian National Railways. Aug. 17, Hon. Ernest Roy, Judge of the Superior Court of Quebec. Sept. 19, William H. Huggins, K.C., Ottawa, Ont., Exchequer Court Reporter. Sept. 20, Clarence J. Jameson, Digby, N.S., former Civil Service Commissioner and ex-M.P. for Digby-Annapolis. Oct. 17, Alexander Smith, former organizer of the Liberal party and well-known Ottawa barrister. Nov. 8, Capt. J. F. Cahan, Halifax, N.S., ex-M.L.A., Nova Scotia. Nov. 9, Hon. Justice William N. Ferguson, K.C., Toronto, Ont., Justice of the Appellate Division of the Supreme Court of Ontario. Nov. 12, Edward J. Owens, Toronto, Ont., ex-M.L.A., Ontario. Nov. 22, His Honour J. A. Mulligan, Judge of Carleton County, Ontario. Dec. 1, Hon. Rodolph Monty, P.C., K.C., LL.D., Montreal, Que., former Member of the Meighen Cabinet; Hon. John Webster, Senator, Brockville, Ont. Dec. 3, William T. Goodison, M.P. for West Lambton, Ont. Dec. 4, Francis H. Keefer, K.C., Public Trustee of Ontario. Dec. 19, Harold Fisher, K.C., Ottawa, Ont., former Mayor of Ottawa and ex-M.L.A. for Ottawa. Hon. Walter C. Nichol, LL.D., Victoria, B.C., former Lieutenant-Governor of that Province. **1929.**—Jan. 6, Hon. George H. Murray, Montreal, Que., Premier of Nova Scotia from 1896 to 1923. Jan. 10, Hon. William B. Ross, Middleton, N.S., Conservative Leader in the Senate. Jan. 13, Major Graham A. Bell, C.M.G., Deputy Minister of Railways and Canals. Jan. 14, Hon. Alexander B. Warburton, D.C.L., former Premier of Prince Edward Island and M.P. for Queen's County. Jan. 18, Hon. Theodore A. Burrows, Winnipeg, Man., Lieutenant-Governor of Manitoba. Jan. 27, Hon.

J. E. Martin, Montreal, Que., Acting Chief Justice of the District of Montreal. Jan. 29, Sir Charles P. Davidson, former Chief Justice, Quebec Superior Court. Hon. John H. Bell, K.C., former Premier of Prince Edward Island. Feb. 8, Hon. Dr. R. F. Preston, Carleton Place, Ont., M.P. for Lanark. Feb. 17, Hon. J. C. Patterson, Ottawa, Ont., formerly Lieutenant-Governor of Manitoba and a former Dominion Cabinet Minister. Feb. 24, Sir Vincent Meredith, Bart, Montreal, Que., Chairman of the Board of Directors of the Bank of Montreal. Mar. 1, Sir James A. M. Aikins, K.C., Winnipeg, Man., former Lieutenant-Governor of Manitoba. Mar. 15, Hon. Gordon Hunter, Vancouver, B.C., Chief Justice of the Supreme Court of British Columbia. Mar. 18, Robert N. Venning, late Superintendent of Fisheries, Ottawa, Ont. Mar. 29, Sir Lomer Gouin, Lieutenant-Governor of Quebec. Sir Hugh John Macdonald, Winnipeg, Man., former Dominion Cabinet Minister and former Premier of Manitoba. April 1, William Harty, Kingston, Ont., former Minister of Public Works of Ontario, and for 10 years M.P. for Kingston. April 17, Sir Clifford Sifton, former Dominion Minister of the Interior and sometime Chairman, Commission of Conservation of Canada. April 18, Hon. Dr. J. W. Edwards, M.P., for Frontenac-Addington, and former Minister of Immigration. April 18, Dr. George Christie Creelman, former President of the Ontario Agricultural College and one time Agent-General for Ontario in London, Eng. April 21, William D. Staples, former M.P. for Macdonald, Manitoba. April 23, Judge James Redmond O'Reilly of the county court of Dundas, Stormont and Glengarry. May 6, Sir William Dillon Otter, K.C.B., commander of the Battleford column in the Rebellion of 1885 and of the First Canadian Contingent in the South African War. May 19, Hon. Robt. Watson, Senator, Brandon, Manitoba. May 30, Roch Lanctot, M.P. for Laprairie, Que. June 3, Sir John Morison Gibson, Lieut.-Governor of Ontario, 1908-14.

Section 4.—Canadian Books of 1928.

NOTE.—Works of fiction are not ordinarily included in this list.

Barbeau, M. The Downfall of Temlaham. (A story of Indian Life) Macmillan Company, Toronto.

Bernier, Captain J. E. Master Mariner. A Narrative of Fifty Years at Sea. Carrier, Montreal.

Bird, W. R. A Century of Chignecto. Ryerson Press, Toronto.

Bodilly, Commander R. B., R.N. The Voyage of Captain Thomas James, (for the Discovery of the Northwest Passage, 1631). Dent, Toronto.

Borden, Sir Robert. Canada in the Commonwealth. Doubleday, Doran and Gundy, Toronto.

Brady, A. William Huskisson and Liberal Reform. Doubleday, Doran and Gundy, Toronto.

Brebner, J. Bartlet. New England's Outpost: Acadia before the Conquest of Canada. Doubleday, Doran and Gundy, Toronto.

Burpee, L. J. An Historical Atlas of Canada. Nelson, Toronto.

Canadian Annual Review of Public Affairs, 1927-28 (founded by J. Castell Hopkins). Canadian Review Co., Toronto.

Connor, Professor C. Y. Archibald Lampman, Canadian Poet of Nature. Carrier, Montreal.

Corbett, P. E. and Smith, H. A. Canada and World Politics. Macmillan Company, Toronto.

De Casson, Dollier. A History of Montreal, from 1640 to 1672. (Translation by R. Flenley.) Dent, Toronto.
Glazebrook, G. P. deT. Sir Charles Bagot. Doubleday, Doran and Gundy, Toronto.
Hayes, S. An Economic History of Canada. Macmillan Company, Toronto.
Heagerty, J. J., M.D. Four Centuries of Medical History in Canada. Macmillan Company, Toronto.
Heaton, Professor H. A History of Trade and Commerce. Nelson, Toronto.
Howay, F. W. British Columbia: The Making of a Province. Ryerson Press, Toronto.
Innis, H. A. Peter Pond, Fur Trader. Irwin and Gordon, Toronto.
Jenness, D. The People of the Twilight. (Eskimo life). Macmillan Company, Toronto.
King, Rt. Hon. W. L. Mackenzie. The Message of the Carillon and Other Addresses. Macmillan Company, Toronto.
LeRossignol, J. E. The Beauport Road. McClelland and Stewart, Toronto.
Logan, H. A. History of Trade Union Organization in Canada. Macmillan Company, Toronto.
MacMechan, Archibald. There Go the Ships. McClelland and Stewart, Toronto.
McWilliams, M. S. Manitoba Milestones. Dent, Toronto.
Meredith, A. G. Mary's Rosedale and Gossip of Little York. Graphic Publishers, Ottawa.
Moberly, H. J. and Cameron, W. B. When Fur was King. Dent, Toronto.
Moore, E. S. The Mineral Resources of Canada. Irwin and Gordon, Toronto.
Morison, J. L. The Eighth Earl of Elgin. Musson Book Co., Toronto.
Morton, A. S. The Journal of Duncan McGillivray. Macmillan Company, Toronto.
Patton, H. S. Grain Growers' Co-operation in Western Canada. Harvard University Press.
Pope, Sir Joseph. The Memoirs of Sir John A. Macdonald, revised edition. Irwin and Gordon, Toronto.
Preston, W. T. R. My Generation of Politics and Politicians. Musson Book Co., Toronto.
Price, F. Newlin. Horatio Walker. Carrier, Montreal.
Riddell, Honourable Mr. Justice. The Bar and the Courts of the Province of Upper Canada, or Ontario. Macmillan Company, Toronto.
Roy, Pierre Georges. The Isle of Orleans. Carrier, Montreal.
Roy, Pierre Georges. L'Ile d'Orléans. Proulx, Quebec.
Smith, William. The Evolution of Government in Canada. National Committee of the Diamond Jubilee of Confederation, Ottawa.
Snider, C. J. J. Under the Red Jack: The Privateers of the Maritime Provinces of Canada in the War of 1812. Musson Book Co., Toronto.
Tanghe, Raymond. Géographie humaine de Montréal. Librairie d'action canadienne-française, Montreal.
Walden, Arthur T. A Dog Puncher on the Yukon. Carrier, Montreal.
Wallace, F. W. The Record of Canadian Shipping. Musson Book Co., Toronto.
Waugh, W. T. James Wolfe: Man and Soldier. Carrier, Montreal.
Wrong, Professor George M. The Rise and Fall of New France. Macmillan Company, Toronto.

Section 5.—Extracts from the Canada Gazette—Official Appointments, Commissions, Etc.

Lieutenant-Governors, 1928.—Dec. 11, Major-General Hugh H. McLean, K.C., Rothesay, N.B.; to be Lieutenant-Governor of the Province of New Brunswick, said appointment to take effect on Dec. 28, 1928. Dec. 31, Sir Lomer Gouin, K.C.M.G., Montreal, Que.; to be Lieutenant-Governor of the Province of Quebec, to take effect on Jan. 10, 1929. **1929.**—Jan. 25, James Duncan McGregor, Brandon, Man.; to be Lieutenant-Governor of the Province of Manitoba. April 2, Hon. H. G. Carroll, Quebec, Que.; to be Lieutenant-Governor of the Province of Quebec.

Senators, 1928.—Dec. 6, Henry H. Horsey, Cressy, Ont., and Hon. Walter E. Foster, Saint John, N.B. **1929.**—Jan. 23, Hance J. Logan, Amherst, N.S.

New Members of the House of Commons, Sixteenth Parliament, 1928.—Oct. 29, J. Earl Lawson, elected by acclamation for West York, Ont. Dec. 6, D. B. Plunkett, elected for Victoria, B.C. Dec. 17, C. E. Ferland, elected for County Joliette, Que. **1929.**—Jan. 14, R. W. Gray, elected by acclamation for West Lambton, Ont.

Commissioners, 1928.—Mar. 6, Stanley G. Springsteen, Windsor, Ont., barrister-at-law; to be a Commissioner to investigate and report upon political partisanship and other charges preferred against Thomas McGookin in connection with his duties as Indian Agent at Muncey, Ont. April 13, George P. Smith, Hamilton, Ont.; to be a Member of the Corporation of the Hamilton Harbour Commissioners for a term of three years from the date hereof. May 7, The Hon. Robert E. Harris, Chief Justice of the Supreme Court of Nova Scotia, the Hon. Humphrey Mellish, the Hon. Joseph A. Chisholm, the Hon. William F. Carroll, the Hon. Stuart D. Jenks, Puisné Judges of the said Court, and the Hon. Robert H. Graham, Judge in Equity of the said Court; to be Commissioners *per dedimus potestatem* to tender and administer to and take from all and every person or persons who now holds or hold or who shall hereafter hold any office or place of trust or profit or who may be appointed to discharge any duty within the Province of Nova Scotia, the oath of allegiance, and also such other oath or oaths as may from time to time be prescribed by any law or statute in that behalf made and provided. May 30, Gordon C. Lindsay, Toronto, Ont., barrister-at-law; to be a Commissioner to investigate and report upon the illegal removal of alcohol in bond by the Sunset Vinegar Co., reorganized in 1925 under the name of the British Columbia Vinegar Co. Ltd., and the British Columbia Distillery Co., Ltd., New Westminster, and also Joseph Kennedy, Ltd. June 30, Alfred Nadeau, Quebec, Que., one of His Majesty's Counsel learned-in-the-law for the said province; to be a Commissioner to investigate charges of political partisanship preferred against Alphonse Paquet, keeper of the back range light at Ste. Famille, Isle of Orleans, Que. June 26, Thomas L. Richard, Ottawa, Ont., Acting Commissioner of Patents; to be Commissioner of Patents with status of Deputy Minister, such appointment to be effective from April 1, 1928. July 25, Charles A. Magrath, the Hon. Sir William Howard Hearst, K.C.M.G., and George W. Kyte, K.C.; to be Commissioners of the International Joint Commission, established under the Treaty between Great Britain and the United States of America, concluded at Washington on Jan. 11, 1909, relating to Boundary Waters and questions arising along the Boundary

between Canada and the United States. Aug. 1, The Hon. William F. A. Turgeon, a Judge of the Court of Appeal of Saskatchewan, the Hon. Thomas A. Crerar, Winnipeg, Man., and Charles M. Bowman, Waterloo, Ont., Chairman of the Board of Directors of the Mutual Life Assurance Co. of Canada; to be Commissioners to enquire into and report upon matters relating to the transfer of the natural resources of the Province of Manitoba to that Province. Aug. 1, Désiré L. Desbois, Montreal, Que., advocate, one of His Majesty's Counsel learned-in-the-law for the said Province; to be a Commissioner to investigate charges of political partisanship preferred against Arthur St.-Pierre, keeper of the Verchères Village back light, at Verchères, Que. Aug. 16, Simon J. McLean, Ottawa, Ont., barrister-at-law; to be a member of the Board of Railway Commissioners for Canada for a further term of ten years, dating from the 17th September, 1928, with the style of Assistant Chief Commissioner of the said Board. Aug. 30, Bennet John Roberts, Secretary of the Department of Finance, John Chisholm, Assistant Deputy Minister of Justice, and Roscoe M. Brown, Acting Director of Forestry; to be Commissioners to enquire into the claim of Robert W. McLellan, barrister, Fredericton, N.B., for remuneration for his services as a Pulpwood Commissioner, the said Bennet John Roberts to be Chairman of the said Commissioners. Sept. 10, George Ian MacLean, Ottawa, Ont., to be Gold Commissioner of the Yukon Territory, effective from April 1, 1928. Dec. 6, Sir John Aird, Kt., President of the Canadian Bank of Commerce, Toronto, Ont., Chairman, Charles A. Bowman, Editor of the Citizen, Ottawa, Ont., and Augustin Frigon, Director of the Polytechnic School of Montreal, Que.; to be Commissioners to examine into the broadcasting situation in Canada and to make representation to the Government as to the future administration, management, control and financing thereof. Dec. 22, Lieut.-Col. John T. C. Thompson, Ottawa, Ont., D.S.O., barrister-at-law; to be a Member and Chairman of the Board of Pension Commissioners for Canada for a period of ten years from the date hereof. **1929.**—Jan. 4, James Cormack, of Havana, in the Republic of Cuba, Esq., Trade Commissioner for Canada for such Republic; to be Commissioner to administer oaths and to take and receive affidavits, declarations and affirmations in the Republic of Cuba in or concerning any proceedings had or to be had in the Supreme Court of Canada and in the Exchequer Court of Canada. Jan. 25, The Hon. Horace Harvey, the Chief Justice of the Court of Appeal of the Supreme Court of Alberta, the Hon. James Duncan Hyndman, the Hon. Alfred H. Clarke, the Hon. Charles Richmond Mitchell, the Hon. Harry William Lunney, Justices of Appeal of the said Appellate Division, the Hon. William Charles Simmons, the Chief Justice of the Trial Division of the said Supreme Court of Alberta, the Hon. William Leigh Walsh, the Hon. William Carlos Ives, the Hon. Thomas Mitchell Tweedie, the Hon. John Robert Boyle and the Hon. Frank Ford, Justices of the said Supreme Court of Alberta; to be Commissioners or Commissioner *per dedimus potestatem* to tender and administer to and take from all and every person or persons who now holds or hold or who shall hereafter hold any office or place of trust or profit or who may be appointed to discharge any duty within the Province of Alberta, the oaths of allegiance and also such other oath or oaths as may from time to time be prescribed by any law or statute in that behalf made and provided. Mar. 12, John August Stoneman, of Saskatoon, in the Province of Saskatchewan, Esq.; to be a member of the Board of Railway Commissioners for Canada. April 15, Edward W. Beatty, Esq., President of the Canadian Pacific Railway, Montreal, Sir Georges Garneau, President Garneau Limitée, Quebec, and Dr. Walter C. Murray, LL.D., President of the University of Saskatchewan, Saskatoon; to

be a Commission under Part 1 of the Inquiries Act, to inquire into rates of salaries, pensions, etc., of technical and professional officials of the Civil Service of Canada, and to make such other observations with regard to salaries generally in the Civil Service as the Commission may consider relevant. April 19, The Honourable William Egerton Perdue, Chief Justice of Manitoba, the Honourable Charles P. Fullerton, the Honourable Robert Maxwell Denistoun, the Honourable James Emile Pierre Prendergast, and the Honourable Walter Harley Trueman, Judges of Appeal of the Court of Appeal for Manitoba; to be commissioners *per dedimus potestatem* to tender and administer and take from all and every person or persons who now holds or hold any office or place of trust or profit or who may be appointed to discharge any duty within the Province of Manitoba, the oath of allegiance. The Honourable Daniel Alexander Macdonald, Chief Justice of the King's Bench for Manitoba, the Honourable Alexander Casimir Galt, the Honourable Andrew K. Dysart, the Honourable John Evans Adamson, the Honourable James Frederick Kilgour, and the Honourable William J. Donovan, Puisné Justices of the said Court; to be commissioners *per dedimus potestatem* to tender and administer and take from all and every person or persons who now holds or hold or who shall hereafter hold any office or place of trust or profit or who may be appointed to discharge any duty within the Province of Manitoba, the oath of allegiance.

Official Appointments, 1928.—Mar. 30, Thomas C. Norris, Winnipeg, Man., a Member of the Legislative Assembly of Manitoba; to be a Member of the Board of Railway Commissioners for Canada, in the room and place of Arthur C. Boyce, K.C., whose term of office has expired. April 18, Henry M. Tory, Edmonton, Alberta, Doctor of Laws, President of the University of Alberta, a Member of the Honorary Advisory Council for Scientific and Industrial Research; to be President of the Honorary Advisory Council for Scientific and Industrial Research for a period of seven years and until his successor has been appointed, this appointment to date from June 1, 1928. April 19, The Hon. William E. Perdue, Chief Justice of Manitoba; to be Administrator of the Government of Manitoba for ten days or thereabouts, beginning April 23, 1928, during the absence on leave of His Honour the Lieutenant-Governor. April 24, The Hon. Philippe Roy, a Member of the King's Privy Council for Canada and Canadian Commissioner-General for Canada in Paris; to represent the Dominion of Canada at the International Copyright Conference to be held on the 8th day of May, 1928, in Rome, Italy, and Jean Désy, Ottawa, Ont., Counsellor of the Department of External Affairs; to be Technical Adviser for and on behalf of Canada at the said Conference. June 12, Reginald V. Harris, Halifax, N.S., one of His Majesty's Counsel learned-in-the-law for the said Province; to be Official Receiver in Bankruptcy in and for Bankruptcy Division No. 1 of the Bankruptcy District of Nova Scotia. Hector Racine, Montreal, Que., merchant and manufacturer; to be a Member of the Advisory Board of Tariff and Taxation, *vice* Alfred Lambert, resigned, effective June 11, 1928. June 20, Thomas B. F. Benson of the port of Toronto, Ont.; to be an officer to superintend the survey and measurement of ships at the said port and also a surveyor of accommodation for seamen. His Excellency the Governor General has been pleased to re-appoint the following members of the Honorary Advisory Council for Scientific and Industrial Research, whose term of appointment expired on Mar. 31, 1928, for a further period of three years, such re-appointments to terminate on Mar. 31, 1931: Hume Cronyn, B.A., LL.B., General Manager Huron and Erie Mortgage Corporation, President Mutual Life Assurance Company of Canada; John C. McLen-

nan, O.B.E., Ph.D., D.Sc., LL.D., F.R.S., Professor of Physics and Director of Physics Laboratory, University of Toronto; Walter C. Murray, M.A., LL.D., F.R.S.C., President, University of Saskatchewan; Arthur S. MacKenzie, Ph.D., D.C.L., LL.D., F.R.S.C., President, Dalhousie University. June 30, The Hon. Pierre B. Mignault, a Puisné Judge of the Supreme Court of Canada; to be Deputy of His Excellency the Governor General. July 12, William A. Found, Ottawa, Ont., Director of Fisheries; to be Deputy Minister of Fisheries, such appointment to date from July 1, 1928. Aug. 16, Hance James Logan, Amherst, N.S.; to be a Director of the Canadian National Railway Co. Aug. 25, Capt. R. N. Rayner, M.B.E., Royal Corps of Signals; to be Aide-de-Camp to His Excellency the Governor-General. Nov. 10, Lieut. R. Twisleton-Wykeham-Fiennes, The Royal Scots Greys; to be Aide-de-Camp to His Excellency. Nov. 29, Lieut.-Col. A. W. Duffus, Royal Canadian Mounted Police, to be Honorary Aide-de-Camp to His Excellency. Sept. 24, The Hon. Philippe Roy; to be His Majesty's Envoy Extraordinary and Minister Plenipotentiary at Paris, with the special object of representing in France the interest of the Dominion of Canada. Nov. 15, William A. Thomson, M.D., Regina, Sask., Peter A. McLennan, M.D., Vancouver, B.C., and Henri A. Lafleur, M.D., Montreal, Que.; to be re-appointed members of the Medical Council of Canada, representing the Governor-General in Council, for a further term of four years commencing from Nov. 26, 1928. Dec. 6, Hon. Peter J. Veniot, Ottawa, Ont., Postmaster General, Louis J. Gaboury of the said city, Deputy Postmaster General, and Arthur Webster of the said city, Secretary of the Post Office Department; to be delegates to represent Canada at the Congress of the Universal Postal Union at London, Great Britain, at a date to be fixed by the Imperial Government, with authority to sign any agreements that may be concluded by the Congress and any other necessary documents. Dec. 28, Lieut. R. J. Streatfield, Royal Artillery; to be an Aide-de-Camp to His Excellency the Governor-General. **1929.**—Jan. 4, John Duncan MacLean, of the city of Victoria, B.C., Esq., Doctor of Medicine, Master of Surgery and Doctor of Laws; to be Canadian Farm Loan Commissioner for a period of ten years. Jan. 9, Lieut.-Col. J. H. Price, M.C., 13th Field Brigade Canadian Artillery, to be Honorary Aide-de-Camp at Quebec. Jan. 17, Ernest C. Drury, B.S.A., LL.D., Barrie, Ont.; to be a member of the Canadian Farm Loan Board for the term of six years, and Beaudry Leman, B.Sc., C.E., General Mgr., Banque Canadienne Nationale, Montreal, Que.; to be a member of the Canadian Farm Loan Board for the term of three years. Feb. 4, Robert A. C. Henry, B.A., B.Sc., Montreal, Que.; to be Deputy Minister of Railways and Canals. Feb. 20, Harry S. Southam, Ottawa, Ont.; to be a Trustee of the National Gallery of Canada. Feb. 28, Frank S. Jacobs, B.Sc.A., farmer, De Winton, Alberta; to be a member of the Advisory Board on Tariff and Taxation. Mar. 7, Commander L. W. Murray, Royal Canadian Navy; to be an Honorary Aide-de-Camp. Mar. 21, The Right Honourable Lyman Poore Duff, Judge of the Supreme Court of Canada; to be Deputy of His Excellency the Governor General.

Judicial Appointments, 1928.—Feb. 13, Arthur C. McCullum, Old Crow, Yukon Territory; to be a Justice of the Peace, having the powers of two Justices of the Peace within the said Yukon Territory, from Jan. 1, 1928. Mar. 30, William J. Donovan, Winnipeg, Man., barrister-at-law; to be a Judge of His Majesty's Court of King's Bench for Manitoba. George S. Inman, Charlottetown, P.E.I., one of His Majesty's Counsel learned-in-the-law for the Province of P.E.I.; to be Judge of the County Court of Prince County, P.E.I. April 16, William M. Brandon, Hamilton, Ont., of Osgoode Hall, barrister-at-law; to be Junior Judge of the County

Court of Wentworth, Ont. His Hon. William M. Brandon, Junior Judge of the County Court of the County of Wentworth, Ont.; to be local Judge of the High Court Division of the Supreme Court of Ontario. April 26, Walter J. O'Hearn, Halifax, N.S., one of His Majesty's Counsel learned-in-the-law for the said province; to be Judge of the County Court of District Number One, in the said province of Nova Scotia. May 2, John T. Mulcahy, Orillia, Ont., of Osgoode Hall, barrister-at-law; to be Judge of the County Court of the County of Renfrew, Ont. His Hon. John T. Mulcahy, Judge of the County of Renfrew, Ont.; to be a Local Judge of the High Court Division of the Supreme Court of Ontario. May 23, Henry W. Lunney, Calgary, Alta., one of His Majesty's Counsel learned-in-the-law for the said province; to be a Justice of Appeal of the Appellate Division of the Supreme Court of Alberta and *ex-officio* a Judge of the Trial Division of the said Supreme Court of Alberta. Aug. 1, Walter A. Nisbet, Cranbrook B.C., barrister-at-law; to be Judge of the County Court of West Kootenay, B.C., such appointment to take effect on and from the first day of Aug. 1928. His Honour Walter A. Nisbet, Judge of the County Court of West Kootenay, B.C.; to be a Local Judge of the Supreme Court of British Columbia. Aug. 16, Frank E. E. Simpson, Dauphin, Man., one of His Majesty's Counsel learned-in-the-law for the said Province; to be Judge of the County Court for the Northern Judicial District, in the Province of Manitoba. Oct. 9, Vincent John Paton, Bridgewater, N.S., one of his Majesty's Counsel learned-in-the-law for the said Province; to be a Puisné Judge of the Supreme Court of Nova Scotia. Oct. 18, Pierre Bouffard, St. Joseph de Beauce, Que., one of His Majesty's Counsel learned-in-the-law for the Province of Quebec; to be a Puisné Judge of the Superior Court in and for the said Province of Quebec. Nov. 3, Jean Joseph Denis, Joliette, Que., one of His Majesty's Counsel learned-in-the-law for the said Province; to be a Puisné Judge of the Superior Court in and for the Province of Quebec. The Hon. Louis P. Demers, a Puisné Judge of the Superior Court in and for the Province of Quebec; to be Local Judge of the Exchequer Court of Canada in Admiralty for the District of Quebec. Nov. 15, Robert L. McKinnon, Guelph, Ont., barrister-at-law; to be the Judge of the County Court of the County of Wellington, Ont. His Hon. Robert L. McKinnon, Judge of the County Court of the County of Wellington, Ont.; to be a Local Judge of the High Court Division of the Supreme Court of Ontario. Henry Carpenter, Hamilton, Ont., barrister-at-law; to be Junior Judge of the County Court of the County of Wentworth, Ont. His Hon. Henry Carpenter, a Junior Judge of the County Court of the County of Wentworth, Ont.; to be a Local Judge of the High Court Division of the Supreme Court of Ontario. The Hon. William E. Middleton, a Justice of Appeal of the Second Divisional Court of the Appellate Division of the Supreme Court of Ontario; to be a Justice of Appeal of the First Divisional Court of the Appellate Division of the Supreme Court of Ontario, and *ex-officio* a Judge of the High Court Division of the Supreme Court of Ontario. The Hon. Robert G. Fisher, a Judge of High Court Division of the Supreme Court of Ontario; to be a Justice of Appeal of the Second Divisional Court of the Appellate Division of the Supreme Court of Ontario and *ex-officio* a Judge of the High Court Division of the said Supreme Court of Ontario. Nicol Jeffrey, Guelph, Ont., one of His Majesty's Counsel learned-in-the-law for the Province of Ontario; to be a Judge of the High Court Division of the Supreme Court of Ontario and *ex-officio* a Judge of the Appellate Division of the said Supreme Court of Ontario. Dec. 1, Louis A. A. Rivet, Montreal, Que., one of His Majesty's Counsel learned-in-the-law for the Province of Quebec; to be a Judge of the Circuit Court of the District of Montreal, in the said

Province of Quebec. Dec. 6, Edward J. Daly, Ottawa, Ont., barrister-at-law; to be the Judge of the County Court of the County of Carleton, Ont. His Hon. Edward J. Daly, Judge of the County Court of the County of Carleton, Ont.; to be a Local Judge of the High Court Division of the Supreme Court of Ontario. **1929.**—Mar. 8, His Honour James Herbert Denton, Junior Judge of the County Court of York, in the Province of Ontario; to be Judge of the said County Court of the County of York. April 9, The Honourable Alfred Ernest Greenshields, a Puisné Judge of the Court of King's Bench in the Province of Quebec; to be a Puisné Judge of the Superior Court in and for the Province of Quebec and to perform the duties of Chief Justice of the said Superior Court in the District of Montreal as it is constituted for the Court of King's Bench sitting in appeal. April 9, The Honourable Aulay MacAulay Morrison, a Puisné Justice of the Supreme Court of British Columbia; to be the Chief Justice of the said Court. Alexander Ingram Fisher, of Fernie, in the province of British Columbia, Esquire, one of his Majesty's Counsel learned-in-the-law for the said Province; to be a Puisné Justice of the Supreme Court of British Columbia. May 4, The Honourable William Langley Bond, a Puisné Judge of the Superior Court in and for the Province of Quebec; to be a Puisné Judge of the Court of King's Bench in and for the said Province of Quebec. May 15, George T. Armstrong, of Manitou, Manitoba; to be Judge of the County Court of the Southern Judicial District of Manitoba, and to be local Judge of the Court of King's Bench.

Day of General Thanksgiving.—Monday, Nov. 12, 1928, was appointed by proclamation as a "day of general thanksgiving to Almighty God for the bountiful harvest and other blessings with which Canada has been favoured this year".

APPENDIX.

1.—Immigration in the fiscal year 1928-29.

During the fiscal year ended Mar. 31, 1929, the immigrants into Canada, classified as in the summary table appearing on p. 185 of this volume, were as follows: From U.K., 58,880; from U.S.A., 30,560; from other countries, 78,282; total 167,722.

Canadians returned from the United States during the fiscal year ended Mar. 31, 1929, classified as in the table on p. 198, were as follows: Canadian-born, 30,008; British-born with Canadian domicile, 2,795; naturalized Canadian citizens, 995; total, 33,798.

2.—External Trade of Canada in the fiscal year 1928-29.

Preliminary figures of the external trade of Canada for the fiscal year ended Mar. 31, 1929, show a grand total trade of $2,654,452,166, as compared with a figure of $2,359,412,763 in the preceding year, or an increase of $295,039,403. The increase in the imports was $156,722,625. Domestic exports increased by $135,379,066, and foreign exports by $2,937,712. Figures by industrial groups are given in the following table, where the figures of imports and exports may be compared with the totals given for previous years in the tables on pp. 502 and 503 of this volume. The aggregate trade was the largest on record.

Imports and Exports of Canada, fiscal year ended Mar. 31, 1929.

Industrial Groups.	Imports.
	$
Agricultural and vegetable products	233,130,244
Animals and animal products	71,661,754
Fibres, textiles and textile products	266,444,044
Wood, wood products and paper	59,214,818
Iron and its products	346,610,936
Non-ferrous metals and their products	75,438,431
Non-metallic minerals and products	166,964,231
Chemicals and allied products	37,723,046
Miscellaneous commodities	68,491,584
Total Imports	**1,265,679,091**
Total Dutiable Imports	821,075,430
Total Free Imports	444,603,661
Duty Collected	200,479,264
	Exports.
	$
Agricultural and vegetable products	646,514,058
Animals and animal products	158,757,272
Fibres, textiles and textile products	9,678,019
Wood, wood products and paper	288,621,745
Iron and its products	82,256,717
Non-ferrous metals and their products	112,655,194
Non-metallic minerals and products	27,401,790
Chemicals and allied products	19,438,064
Miscellaneous commodities	18,263,813
Total Domestic Exports	1,363,586,672
Total Foreign Exports	25,186,403
Total Exports	**1,388,733,075**
Grand Total External Trade	**2,654,452,166**

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